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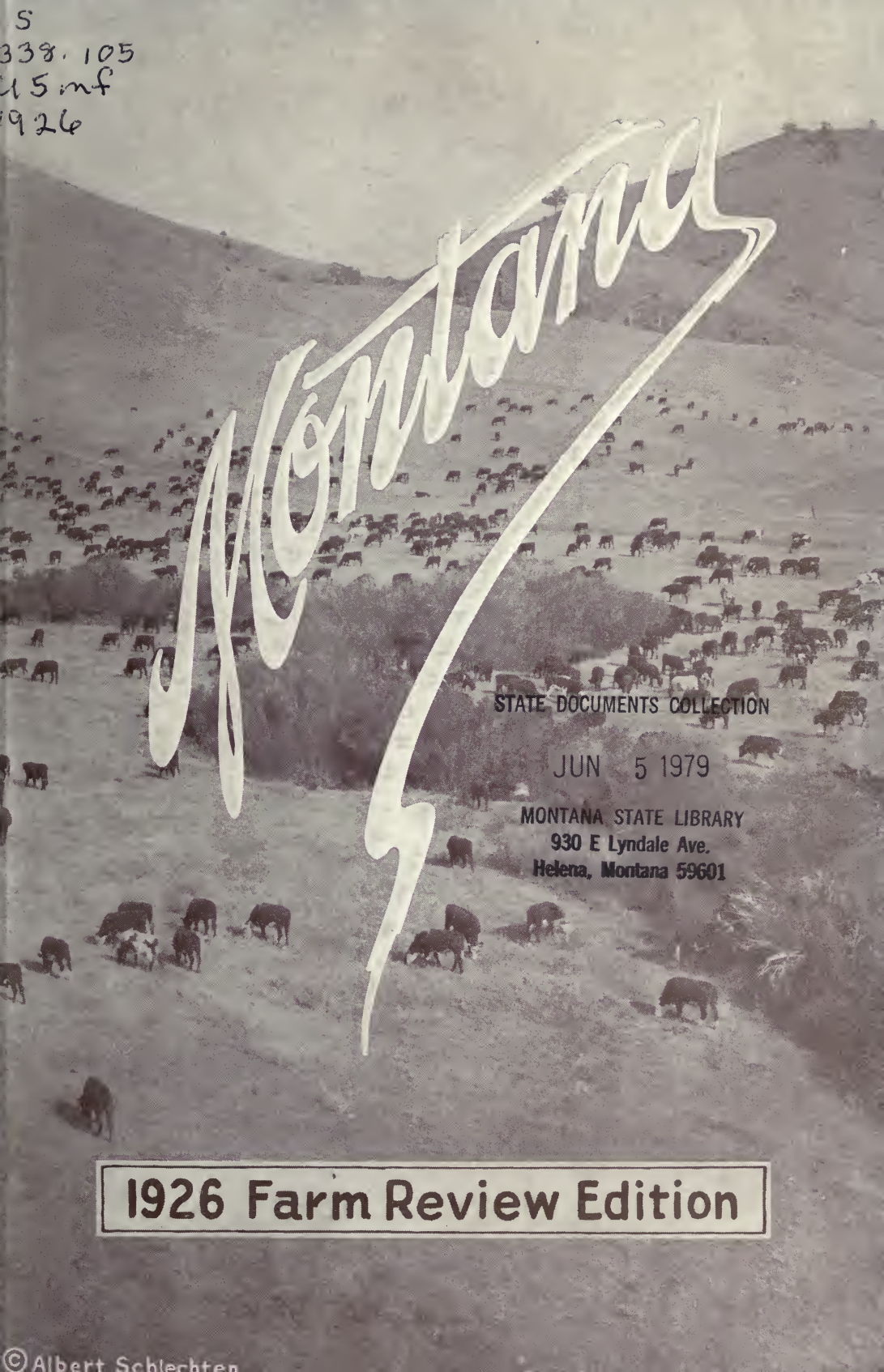

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1926 Farm Review Edition

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Dr. W. J. Butler, state veterinarian; E. A. Phillips, secretary of the livestock board; officials of the state railroad commission and state board of equalization as well as officials of the state department of agriculture have generously made available records of their offices, pertaining to Montana's agriculture, which have been extremely helpful in setting forth various phases of Montana's agricultural industry.

Further acknowledgment is made of material adapted from the splendid feature articles in the U. S. Agricultural yearbooks from 1920 to 1925 inclusive, especially those articles dealing with wheat, beef cattle, sheep, the dairy industry, Weather and Agriculture and others which are valuable in connecting up Montana's agricultural enterprises with those of the nation and the world at large.

MONTANA

1926 FARM REVIEW EDITION

By

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U. S. Bureau of Agricultural Economics

L. S. TENNEY, Chief

Co-operating with the Department of

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FOREWORD

One of the big needs of Agriculture is that of ready access to all possible information relating to production, market supplies and prices, and to basic information from which trends of crop production and livestock breeding may be determined to the end that Agriculture may constantly adjust itself to changing conditions.

Several months elapse between the time of planting crops and the time of harvest and marketing. A year and more may intervene between the time of breeding a meat animal and the time it is finished for market. Obviously if production plans and breeding plans were made entirely on the basis of prices prevailing at the time of planting and breeding, high prices would tend to encourage over-production and low prices to encourage under-production, thus setting up a vicious cycle of over-production with low prices and under-production with high prices.

It is highly important, therefore, if such vicious cycles are to be avoided, that agricultural production be adjusted as closely as possible to the probable prices and market conditions that will prevail at the time such production is ready for market.

To this end surveys of intentions to plant crops and breed livestock, estimates of conditions and probable harvests of growing crops, carry-over stocks and supplies of crops, estimates of annual changes in livestock numbers, size of calf crops, lamb crops, pig crops and wool clips all contribute to a complete service of information by which agriculture may make its own adjustments.

Such a service must include not only data for the United States but so far as possible for the foreign countries with which the American farmer is competing, because the market on which the prices of many of the important agricultural commodities are determined is a world market.

The United States Bureau of Agricultural Economics with its excellent facilities for collection and compilation of such basic information has been cooperating with the Publicity Division of the Montana State Department of Agriculture, Labor and Industry in this work in Montana since 1921. Through this cooperation, duplication of effort is avoided and one official source is established from which important agricultural statistics are available.

Such statistics become the basis from which the agricultural progress of the state may be studied. Students of agriculture and extension workers, banks, railroads, real estate men and the press all use this basic information in their various relationships with agriculture.

Buyers of agricultural products have long collected for themselves detailed information on crop and livestock production to enable them to buy more advantageously. By making similar information available to agricultural producers through the use of the press, direct mail and radio, more equality between seller and buyer has been established.

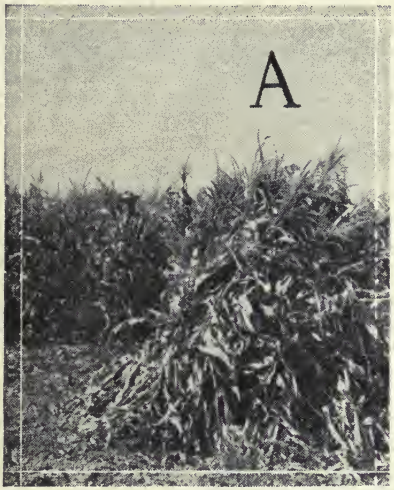
No claim is made by anyone connected with this service that its estimates, forecasts and other economic information are perfect, that is, entirely free of error. However, in cases where it is possible to check estimates against ultimate market supplies and other consumption, the average size of such error has been found surprisingly small, so that general conclusions drawn from such information have been relatively sound.

In Montana approximately 3,000 farmers and stockmen are reporting crop and livestock conditions to the office of the Agricultural Statistician. Throughout the United States more than 200,000 farmers are cooperating in this work. The Federal Crop Reporting Service has been operating under congressional appropriation for more than sixty years and is recognized as the most efficient organization of its kind in the world. Prior to 1921 the Montana service was carried on by the government independent of any state organization. At that time the Department of Agriculture, Labor and Industry entered into an agreement with the U. S. Bureau of Agricultural Economics whereby the scope of the work has been enlarged. One of the results of this cooperation has been an annual printed review of Montana's agricultural progress.

The present publication takes the place of the fifth annual edition of the Montana Farm Review formerly published by the State of Montana as a joint Bulletin with the U. S. Bureau of Agricultural Economics.

JAY G. DIAMOND,
Agricultural Statistician,
U. S. Bureau of Agricultural Economics and the
State Department of Agriculture, Labor
and Industry.

GENERAL REVIEW



A PICTURE of the Montana crop situation in 1926 must include an inset of east central and southeastern Montana, where the season was almost a repetition of the disastrous experience of 1919, in contrast with which the rest of the state ranged from an average crop to yields the best in years in central and south central Montana. For the state as a whole, production of principal crops in 1926 exceeded that of 1925 by about five per cent despite the drouth in the eastern sections and the severe freeze of September 24th and 25th which badly damaged the corn, potato and apple crops.

THE GROWING SEASON

In general the growing season was characterized by temperatures above and rainfall below normal, which in east central and southeastern Montana combined with a very light winter reserve of soil moisture to seriously impair the early growth of winter wheat and spring grain crops.

General rains of June 12th to 20th came in time to save the crop prospect in central, western and to a large extent northern Montana although some permanent damage had already occurred on light soils in this latter area and extreme northwestern Montana. These rains were too late to make much difference in the situation in east central and southeastern Montana, except in the higher elevations along the Wyoming line in southeastern Montana, where drouth had been less severe.

July and August were not unfavorable, considering the type of weather expected at that time, but drouth areas were needing weather much more favorable than average.

September witnessed a reversal of the season's trend of high temperatures and low rainfall, being marked by excess precipitation and subnormal temperatures that culminated in the freeze of September 24th and 25th and brought zero weather to central Montana and damaging temperatures generally. For low temperatures in September, this weather broke all state records.

THE FREEZE DAMAGE

The cold September cut short the growing season for corn which, in the eastern third of the state, was planted later than usual due to the dry weather. Less than a third of the crop was matured at the time of the freeze. Nearly half of the apple crop in the important Bitter Root and Flathead sections of western Montana was still on the trees, the unpicked portion of the crop being nearly a complete loss. The bulk of the potato crop was still in the ground and suffered a loss of frozen stock that is expected to reduce the state's exports of potatoes to about half those of last year, with damage to stored potatoes showing more badly than first supposed. Lighter damage from freeze and wet September weather occurred in case of beans and peas and unthreshed grain crops.

AGGREGATE PRODUCTION LARGER IN 1926

From a crop production standpoint and compared with 1925 and the 1920-1924 average, the western half of the state, in 1926, has rated above both last year and average, the northwestern quarter of the state was generally below last year

and about average, and the drouth area of east central and southeastern Montana was below both last year and average. Crop production for the state as a whole in 1926 exceeded that of 1925 by about 5 per cent.

LIVESTOCK SHIPMENTS SHOW BIG INCREASE

Because of increased market supplies of sheep and lambs and the large 1926 lamb crop, shipments of sheep and lambs have greatly exceeded those of any year since the war. Short feed supplies undoubtedly contributed to marketings which were somewhat larger than potential supplies indicated and resulted in some reduction of inventory numbers. Approximately 1,720,000 sheep and lambs were shipped out in 1926 compared with 967,000 head in 1925.

CATTLE SHIPMENTS

While potential market supplies of cattle in 1926 did not equal those of 1925, which were considered the largest of any normal year actual shipments of cattle and calves aggregated 504,000 head against 407,000 head in 1925. Drouth and short feed supplies in eastern Montana and to some extent in other sections have been partly responsible for the very large 1926 shipments. A large 1926 calf crop offsets to an extent the heavy 1926 marketings and prevented a very serious reduction in inventory numbers. 1927 marketings will probably be smaller than 1926 and contain a larger than usual percentage of young stuff.

WOOL PRODUCTION

Wool production in 1926 was 23,672,000 pounds or an increase of about thirteen per cent compared with 1925. An increase both in numbers shorn and the average weight per fleece accounted for the increase. Wool prices in 1926 were somewhat below those of 1925 and well below those of 1924.

DAIRY INDUSTRY GAINS

A further increase in the production of dairy products in the state appears to have come about largely through increased efficiency of the dairy herd. The monthly survey of milk production, conducted through crop correspondents, for the period April to November inclusive, when compared with the same period in 1925, shows a gain of 1.2 per cent in the average number of cows milked in the herd in 1926 and an increase of 4.6 per cent in the average production per herd, offsetting a slight decrease in the average total number of cows in the milk herd. Prices for dairy products in 1926 averaged slightly better than in 1925.

PRODUCTION AND PRICE CHANGES

Against an aggregate total production of Montana crops in 1926 that exceeded 1925 by about five per cent, farm prices by the end of the 1926 season had, in most cases, worked to lower levels than in 1925, offsetting to some extent the production gain. However, compared with the averages of the period 1920-1924, both prices and production in 1926 have been mostly above these averages.

CHANGES IN NUMBERS OF FARMS

No complete data are available concerning the changes in numbers of farms that have occurred since the federal farm census of 1925. At that time 46,904 farms were enumerated compared with 57,677 farms enumerated in 1919. During this period the number of farms operated by owners decreased from 50,271 in 1920 to 36,379 in 1926, while the number of tenant farmers increased from 6 507 in 1920 to 10,027 in 1925. The period covered by these changes reflects the post-war adjustments, which in Montana were made more drastic by reason of the drouth and heavy losses of 1917, 1918 and 1919. It is generally believed that by 1925 the downward trend in numbers of farms had been checked, and that since then the tendency has been that of an increase. Some new settlers during the past two years have come into eastern Montana and into extreme western Montana, but definite figures on this movement are not yet available.

TREND OF LAND VALUES

Average values of Montana farm lands in 1926 made some recovery from the low points reached in 1925, but are still far under the averages attained during the war period. Comparison of 1926 values with preceding years is shown in the following table which is based on reports made each March by crop correspondents in Montana.

MARCH 1st VALUES PER ACRE

	1926	1925	1924	1920	1919	1918
	$	$	$	$	$	$
Poor Plow Lands	13.50	13.00	12.50	21.80	20.00	21.90
Good Plow Lands	29.60	27.90	30.00	50.50	45.30	48.50
All Plow Lands	22.50	18.50	21.50	36.00	33.50	36.50
All Farm Lands—Improved	27.00	23.50	25.50	42.20	40.00	43.00
Same Unimproved	19.00	15.00	19.00	35.50	32.50	33.00

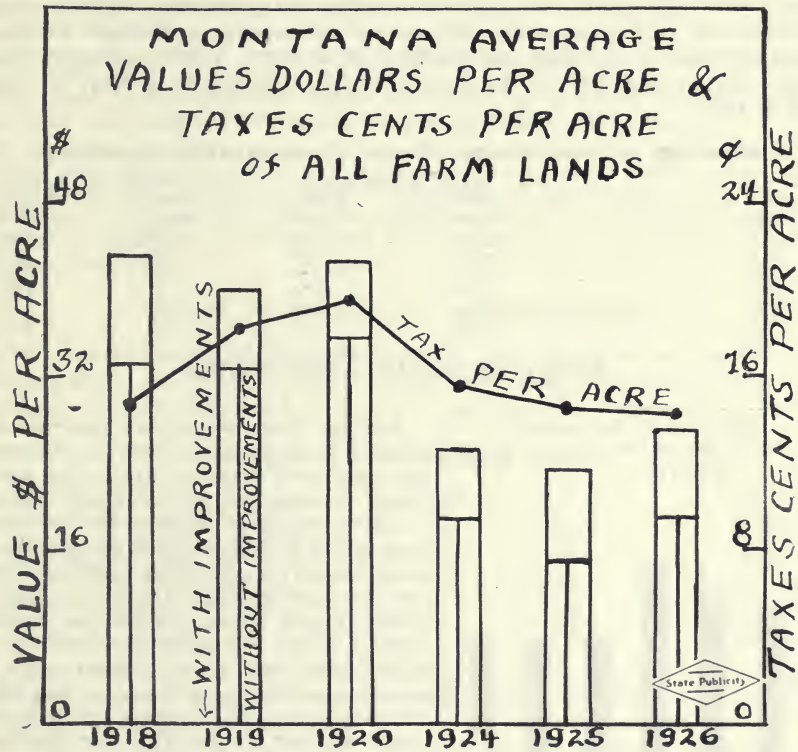
In these estimates which are the annual averages of the judgment of a large number of farmers as to values on March 1st each year, is shown the trend of land values through the war period and the deflation period.

TREND OF TAXES

The trend of taxes per acre of farm lands and per head of livestock has also been downward. According to a recent report of the State Equalization Board, these averages have been as follows:

	1926	1925	1924	1920	1919	1918
	cents	cents	cents	cents	cents	cents
Average Tax per Acre Farm Land	14.1	14.5	15.4	19.3	18.0	14.5
Average Tax per Head Cattle	53.6	44.5	45.5	87.1	94.8	104.0
Average Tax per Head Sheep	17.6	14.3	11.9	18.6	16.7	28.3

Comparison of the tax table in case of land with the preceding table on land values as estimated by farmers themselves not only shows that taxes have come down in relatively close proportion to the decline in values, but they continued to decline in 1926 when land values were rated slightly higher by farmers themselves.



Comparison of taxes on livestock with yearly January 1st values as estimated by farmers themselves is available from the following table:

AVERAGE VALUES ON JANUARY 1st IN EACH YEAR

	1926 Per Head $	1925 Per Head $	1924 Per Head $	1920 Per Head $	1919 Per Head $	1918 Per Head $
All Cattle	32.00	30.00	31.00	53.00	59.00	53.00
All Sheep	11.40	10.40	8.70	10.40	11.80	12.60

IMPORTS OF FARM IMPLEMENTS

No complete figures are available as to the sale of farm implements, although from records of the state railroad commission, it is possible to compare the yearly total car shipments of all farm implements.

Year (June to Dec.)	Farm Implement Shipments Cars
1918	593
1919	671
1920	542
1924	249
1925	196
1926*	266*

*Complete only to December.

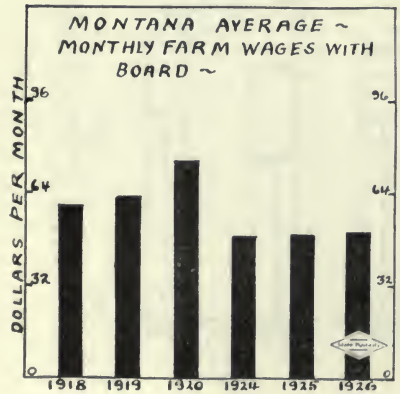
From this data, is evident a downward trend in the sales of farm implements from the high point of 1919 to a relatively low point in 1925. Nineteen twenty-six, however, records a gain over both 1925 and 1924.

On the other hand there has been a relatively large increase in certain types of farm machinery since 1920 according to surveys of the state agricultural college, which show substantial gains for medium size tractors, combine-harvester-threshers and field cultivators. Horses are still cheap in Montana despite the downward trend in breeding and numbers since 1920. Total number of tractors in the state as reported by the Federal census dropped from 7,647 in 1920 to 6,602 in 1925.

REPORTED AVERAGE YEARLY WAGES OF FARM LABOR IN MONTANA

Year	Wages by the Month With Board	Wages by the Month Without Board	Wages by the Day With Board	Wages by the Day Without Board
1918	$59.50	$ 83.00	$3.80	$4.75
1919	62.50	89.00	4.00	4.95
1920	75.40	105.00	5.20	6.20
1924	48.70	69.10	2.51	3.60
1925	49.10	69.30	2.70	3.52
1926	50.10	70.60	2.75	3.50

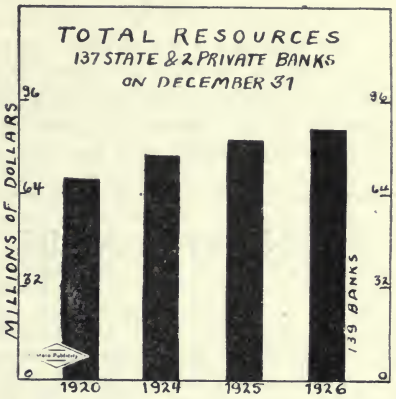
TREND OF FARM LABOR WAGES



Average farm wages are reported quarterly by crop correspondents in Montana, in the months of January, April, July and October. Comparison of the yearly averages of these reports is made in the table above from which is evident the downward trend in labor costs from the high point of 1920 to the low point of 1924. During the past two years wages have tended to stabilize slightly above the 1924 low point. In October, 1926, the average farm wage per month, with board, in Montana was $52.50, compared with the average of $53.61 for eleven western states, $47.75 for nine north-Atlantic states and $36.00 the average for the United States.

TREND OF BANK DEPOSITS

The annual report of the state bank examiner for December 31, 1926, shows total resources of 137 state banks and 2 private banks of $86,292,527, compared with $68,770,674 for these same banks on December 31, 1920. Demand deposits in these banks increased from $30,323,987 in 1920 to $44,710,492 in 1926. Time and savings deposits in these banks increased from $22,774,488 in 1920 to $27,957,875 in 1926.



During the past three years in these banks savings deposits alone increased from $9,863,627 on December 31, 1924, to $12,590,745 on December 31 1926 and were $11,455,924 on December 31, 1925.

In a state like Montana where a relatively large share of the total banking transactions is contributed by agriculture, it may be assumed that the physical condition of banking institutions will tend to reflect the financial condition of agriculture.

It must not be assumed from the comparison above that total bank resources increased from 1920 to 1925, a period in which some of the most severe re-adjustments in the state's history of agriculture were witnessed. There were 288 state banks and 142 national banks in Montana on January 1, 1920 and the bank call for December 1919 showed a total of $194,219,695 in deposits. Between 1920 and June 1926, 147 state banks and 45 national banks had ceased to function.

In 1920 Montana's population per bank was 1,276 compared with 1,388, the average of the west north central agricultural states, and 7,517 in the middle Atlantic states. During the post-war depression period bank failures in the various states occurred almost in an inverse proportion to the per capita population per bank, indicating that fewer well managed banks of larger resources would have better served the agricultural areas during this period.

It may, therefore, be assumed that with her present per capita population per bank of 2,177 persons, Montana agriculture is now more safely served, if not actually better served than in 1920. Referring to the comparison of the 147 state banks and 2 private banks, the significant fact is that these banks have survived the deflation period and their history during this period, therefore is of particular interest.

TREND OF MORTGAGE INDEBTEDNESS

The Federal census of agriculture reports the mortgage debt where given by owners of farms in 1920 and 1925, from which may be determined the trend of mortgage debt in this period.

FEDERAL CENSUS MORTGAGE DATA

Item—	1920	1925
Total Number Farms in State	57,677	46,904
Number Operated by Owners	50,271	36,281
Number Reporting Mortgage Debt	29,897	19,818
Per Cent of Total	64.6%	54.6%
Number Reporting Amount of Debt	21,244	11,754
Value of Land and Buildings	$240,549,778	$95,174,254
Amount of Mortgage Debt	77,949,679	42,565,206
Ratio Debt to Value	32.4%	44.7%
Average Mortgage Debt Per Farm	$3,669	$3,621

A fact to consider in connection with the decrease in mortgage debt indicated above is that many farmers escaped mortgage debt through the expedient of turning the farms over to creditors.

There was a decrease in number of owned farms between 1920 and 1925 of 13,992 and at the same time an increase in the number of tenant farmers from

6,507 in 1920 to 10,027 in 1925. The number of 1920 owners not accounted for in this shift is 10,272, nearly the number of 10,773 farms, the decrease in the total number between 1920 and 1925.

No statistics are available to show 1926 changes in amount of mortgage debt or in relative numbers of owned and rented farms. However, with present land values in Montana it is not likely that tenant farmers have increased in 1926 and there is some evidence to show that tenants are beginning to buy places they have been operating.

MONTANA AGRICULTURAL SITUATION AT A GLANCE

CROP PRODUCTION

Shows a steady tendency to increase and diversify. Expansion of acreage on the whole has been conservative and more efficiency in methods is discernible.

LIVESTOCK PRODUCTION

The cattle industry has turned the corner of the post-war depression. Debt pressure has been greatly reduced. Credit facilities have improved. Both immediate and future outlooks are favorable. The sheep industry is on a sound financial basis and the outlook is good although more conservative than during past three years. The hog industry has reacted from the expansion of 1924 and 1925 and apparently now is ready for some further expansion with the immediate outlook good. The dairy industry has been growing steadily and has been fairly profitable.

FINANCIAL CONDITION

There has been considerable liquidation of war time indebtedness. Credit is now based on low security valuations for the whole agricultural industry and on this basis bankers state that they are prepared to take care of all necessary loans. Bank deposits have shown steady increases in past three years.

PRODUCTION COSTS

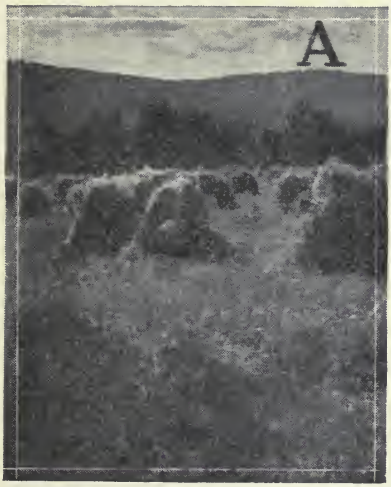
Some items of production costs have come down including farm taxes and farm labor costs. Efficiency in production on the whole shows some tendency to increase.

FARM IMMIGRATION

The decrease in number of operating farms between 1920 and 1925, relatively low present prices of farm lands in Montana, and large reserves of undeveloped farm lands all point to a steady future growth in the number of Montana farms.

WESTERN MONTANA ORCHARD

FARM INCOME 1926



ADDING sales of crop and livestock items from 1926 production gives a total of $129,856,000, which establishes a new record of total farm income for the state. In 1925 total income was $123,732,000 and in 1924, $124,474,000. Estimates of farm income in Montana date back only to 1923, but from all information available, the total income of 1924 had not previously been exceeded.

The increase in total 1926 income over the relatively high totals of the preceding two years was brought about by unexpectedly high returns from livestock sources and principally from the heavy sales of cattle and sheep. Livestock income in 1926 was $71,490,000 or about 5.5 million dollars larger than in 1925 and fully twenty million dollars larger than in 1924. On the other hand income from crops was only about 0.5 million dollars larger than in 1925 and nearly sixteen million dollars smaller than in 1924.

NATURE OF THE INCOME ESTIMATES

These estimates of income are made by the statistical division of the State Division of Publicity. They are based on official estimates of yearly crop production, prices paid to producers and percentages of crop production sold by farmers, and the principal end desired is to show the relative changes in yearly farm income. While an attempt is made each year in the light of market receipts stockyard receipts, railroad, and other data on crop and livestock consumption, to correct each preceding year's estimate, it is not claimed that the estimates are exact computations of farm income. However, made on the same basis each year, the estimates are comparable and tend to show the relative changes in farm income irrespective of such error as exists in the actual figures themselves. Duplication of value in the case of crops fed to livestock and later marketed as meat, milk, and what not, is largely eliminated by estimating the proportion of the production that is marketed for cash.

THE ESTIMATES

Year	Income From Crop Sources	Income From Livestock Sources	Total Income
1923	$46,784,000	$50,872,000	$ 97,656,000
1924	74,343,000	50,131,000	124,474,000
1925(a)	57,877,000	65,855,000	123,732,000
1926(b)	58,366,000	71,490,000	129,856,000

(a) Estimates revised for 1925. (b) Preliminary estimate for 1926.

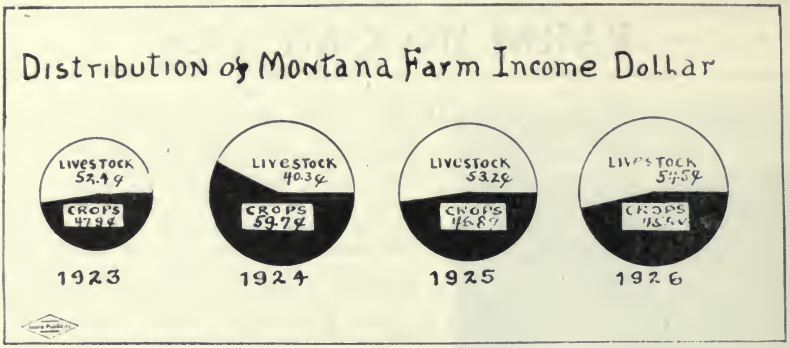
ANALYSIS OF INCOME SOURCES

The total income dollar for 1926 is divided into 55.0 cents from livestock sources and 45.0 cents from crop sources. This represents a gain of 1.8 cents for livestock sources over 1925; a gain of 15.0 cents compared with 1924 and a gain of 2.8 cents compared with 1923.

With the development of dairying, poultry and bees, and, in the case of cattle, a tendency toward larger total numbers compared with the old range days, there has been an upward trend in the value of livestock items that has enabled livestock to retain its relative importance in the face of steadily growing income from cash grain crops and special crops.

Only in 1924, when large grain crops at relatively high prices combined with moderate shipments of cattle and sheep, did the contribution from crop sources exceed that from livestock. From such evidence as is available for former years this appears to have been the only time such a shift has occurred.

In the following graph relative contributions to the farm income dollars from crops and livestock sales are shown for the past four years.



DETAIL OF INCOME SOURCES

Wheat, the largest single income contributor in total income, is expected to return $40,963,000 from 1926 production. In 1925 wheat income was estimated at $39,904,000 and in 1924 at $55,879,000.

In wheat, as an index of the grain belt of Montana, we find a somewhat less favorable situation compared with both last year and 1924. The 1925 crop was almost ten million bushels smaller, but brought within a million dollars of the 1926 estimated income. Important wheat sections of the state are also important cattle and sheep sections, so that increased revenue from livestock sources has in a general way operated to offset a lower income from wheat.

TABLE OF INCOME.

COUNTY TABLE OF VALUE OF CROPS AND VALUE OF LIVESTOCK PRODUCTS SOLD.

MONTANA FARM SALES—1925 AND 1926

FROM CROPS	1925		1926	
CROPS	Total Value	Sales	Total Value	Sales
All Wheat	$48,802,000	$39,904,000	$50,095,000	$40,963,000
All Hay	25,725,000	4,464,000	25,566,000	5,625,000
Oats	7,214,000	1,172,000	8,750,000	1,622,000
Barley	2,359,000	378,000	2,749,000	522,000
Rye	740,000	187,000	963,000	251,000
Flaxseed	2,416,000	2,148,000	1,486,000	1,299,000
Corn	6,255,000	625,000	3,633,000	363,000
Potatoes	6,048,000	2,419,000	3,570,000	919,000
Apples	140,000	42,000	390,000	326,000
Miscellaneous Fruits	35,000	18,000	46,000	27,000
Beans	1,411,000	1,067,000	1,148,000	868,000
Sugar Beets	2,126,000	2,100,000	2,724,000	2,510,000
Truck Crops	385,000	270,000	387,000	271,000
Canning Peas	984,000	984,000	822,000	822,000
Alfalfa Seed	983,000	521,000	837,000	437,000
Seed Peas	1,176,000	940,000	1,040,000	835,000
Farm Gardens and Other Crops	3,530,000	638,000	3,800,000	706,000
Total	$110,329,000	$57,877,000	$108,006,000	$58,366,000
FARM LIVE STOCK		Sales		Sales
Cattle		$27,477,000		$30,016,000
Sheep and Lambs		10,310,000		13,500,000
Wool		9,184,000		8,855,000
Milk and Dairy Products**		8,603,000		10,028,000
Hogs		5,472,000		4,075,000
Poultry		4,059,000		4,221,000
Horses		250,000		265,000
Honey and Wax		500,000		530,000
Total		$ 65,855,000		$ 71,490,000
COMBINED CROP AND LIVESTOCK SALES		$123,732,000		$129,856,000

**Value of Dairy Products estimated here does not include value added by manufacture after leaving farmer's hands.

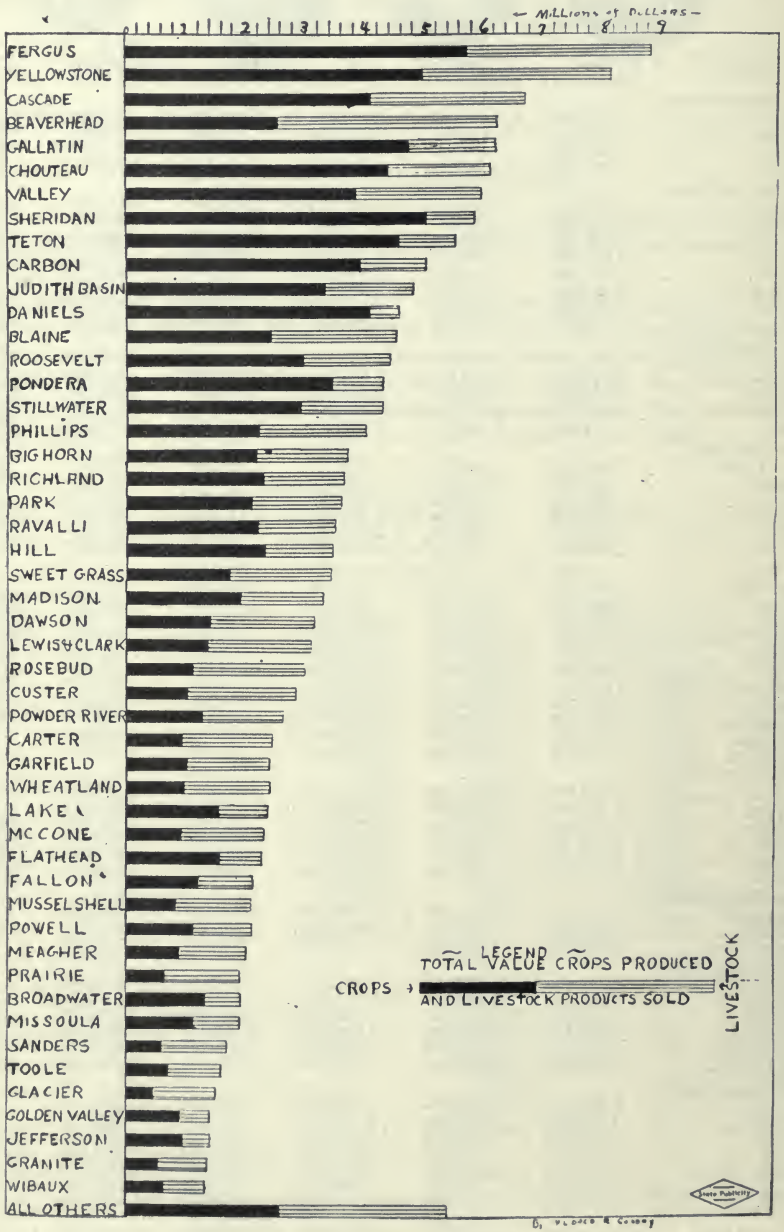
Marketing of cattle in 1926 will be more fully discussed in the livestock section. What concerns us here in the case of income from cattle, the next largest item of the income group, is the fact that marketings which were the largest since the forced liquidation of 1919, have apparently included in the eastern half of the state considerable foundation stock that will need to be replaced. Drouth and short feed supplies have been a large factor in marketings from this section of the state.

VALUE OF CROPS PRODUCED IN 1925 AND 1926 AND VALUE OF LIVESTOCK PRODUCTS MARKETED DURING 1925 AND 1926

District and County	1925 Crop (Produced)	1925 Livestock (Marketed)	1925 Total	1926 Crop (Produced)	1926 Livestock (Marketed)	1926 Total
NORTHWESTERN						
Flathead	$ 2,189,750	$ 489,800	$ 2,679,550	$ 1,559,200	$ 676,500	$ 2,235,700
Lincoln	346,800	194,300	541,100	371,600	265,500	637,100
Lake	1,657,750	650,800	2,308,550	1,536,400	838,400	2,374,800
Sanders	577,200	702,700	1,279,900	590,160	1,064,600	1,654,760
NORTH CENTRAL						
Blaine	2,556,500	2,186,500	4,743,000	2,406,000	2,107,000	4,513,000
Chouteau	3,256,500	1,600,000	4,856,500	4,398,000	1,690,000	6,088,000
Glacier	616,000	1,656,900	2,272,900	446,000	1,097,200	1,543,200
Hill	3,611,900	1,142,500	4,754,400	2,356,000	1,119,000	3,475,000
Liberty	967,000	349,900	1,316,900	684,000	515,200	1,199,200
Pondera	2,861,000	834,100	3,695,100	3,461,000	856,700	4,317,700
Teton	2,830,300	1,126,400	3,956,700	4,588,000	981,100	5,569,100
Toole	886,500	792,900	1,679,400	736,000	897,200	1,633,200
NORTHEASTERN						
Daniels	3,431,200	1,049,500	4,480,700	4,067,000	488,900	4,555,900
Phillips	2,110,100	2,414,300	4,524,400	2,244,000	1,806,300	4,050,300
Roosevelt	3,206,490	1,641,900	4,848,300	2,991,000	1,419,300	4,410,300
Sheridan	4,091,675	1,359,200	5,450,875	5,025,120	830,800	5,855,920
Valley	4,011,700	2,456,400	6,468,100	3,840,000	2,086,100	5,926,100
WEST CENTRAL						
Deer Lodge	393,875	140,350	534,225	349,740	198,000	547,740
Granite	588,775	991,800	1,580,575	547,240	850,400	1,397,640
Mineral	188,350	179,050	367,400	150,460	125,700	276,160
Missoula	1,276,000	413,700	1,689,700	1,144,900	756,100	1,901,000
Powell	1,131,775	948,300	2,080,075	1,113,620	1,031,400	2,145,020
Ravalli	2,285,750	1,374,200	3,559,950	2,185,600	1,376,600	3,553,200
CENTRAL						
Broadwater	1,303,950	597,800	1,901,750	1,278,300	625,400	1,903,700
Cascade	2,805,650	2,074,600	4,880,250	4,118,120	2,591,800	6,709,920
Fergus	5,071,575	3,099,600	8,171,175	5,721,120	3,147,600	8,868,720
Golden Valley	978,000	588,700	1,566,700	901,000	534,600	1,435,600
Jefferson	766,050	389,600	1,155,650	978,700	453,800	1,432,500
Judith Basin	2,327,050	1,619,300	3,946,350	3,322,000	1,478,300	4,800,300
Lewis and Clark	1,364,100	2,069,500	3,433,600	1,349,120	1,757,900	3,107,020
Meagher	701,100	1,481,800	2,182,900	892,000	1,139,400	2,031,400
Musselshell	1,091,300	916,800	2,008,100	837,000	1,318,400	2,155,400
Petroleum	134,000	27,000	161,000	95,000	655,000	750,000
Wheatland	898,000	1,238,400	2,136,400	995,000	1,414,200	2,409,200
EAST CENTRAL						
Dawson	2,324,500	1,185,800	3,510,300	1,441,000	1,730,400	3,171,400
Garfield	1,469,000	1,172,600	2,641,600	1,043,000	1,381,800	2,424,800
McCone	1,976,700	904,800	2,881,500	945,000	1,343,400	2,288,400
Prairie	1,329,700	708,800	2,038,500	640,000	1,278,500	1,918,500
Richland	3,365,475	968,700	4,334,175	2,300,120	1,369,400	3,669,520
Wibaux	1,451,700	547,800	1,999,500	658,000	672,500	1,330,500
SOUTHWESTERN						
Beaverhead	3,237,100	2,861,800	6,098,900	2,556,000	3,656,400	6,212,400
Madison	2,182,800	1,398,200	3,581,000	1,948,400	1,338,600	3,287,000
Silver Bow	259,200	285,400	544,600	242,000	540,200	782,200
SOUTH CENTRAL						
Carbon	3,527,250	1,084,500	4,611,750	3,937,700	1,103,000	5,040,700
Gallatin	4,732,675	1,185,300	5,917,975	4,743,620	1,465,300	6,208,920
Park	2,119,950	1,712,400	3,832,350	2,117,400	1,506,100	3,623,500
Stillwater	2,737,825	1,202,500	4,020,325	2,912,300	1,396,000	4,308,300
Sweet Grass	1,524,225	1,243,600	2,767,825	1,770,200	1,692,800	3,463,000
Yellowstone	5,369,000	2,086,500	7,455,500	4,960,500	3,235,000	8,195,500
SOUTHEASTERN						
Big Horn	2,338,400	1,320,600	3,659,000	2,159,000	1,543,700	3,702,700
Carter	1,154,200	1,620,700	2,774,900	964,000	1,501,700	2,465,700
Custer	1,101,675	1,552,600	2,654,275	1,021,120	1,803,700	2,824,820
Fallon	1,825,200	675,800	2,501,000	1,245,000	911,300	2,156,300
Powder River	1,211,700	1,081,700	3,293,400	1,267,000	1,405,500	2,672,500
Rosebud	1,793,075	1,760,600	3,553,675	1,138,120	1,864,700	3,002,820
Treasure	784,075	415,700	1,199,775	718,120	564,600	1,282,720
STATE TOTAL	$110,329,000	$65,855,000	$176,184,000	$108,006,000	$71,490,000	$179,496,000

Cattle income for 1926 may be considered as including to some extent sales of normal inventory stock that lays the basis for smaller 1927 marketings and income. Cattle income was $30,016,000 in 1926, $27,477,000 in 1925 and $19,215,000 in 1924.

Sheep income, the third largest income item, records a substantial increase over both the preceding years. While shipments, as was the case with cattle, were increased by reason of drouth and short feed, the basis for the large 1926



marketings was already laid in large potential market supplies brought about by the large 1926 lamb crop and the accumulation of old stuff during the restocking period. While prices of both wool and lambs show a recession from levels of 1924 and 1925, 1926 operations of sheepmen have been relatively profitable. Sheep and wool income for 1926 was $22,355,000 compared with $19,494,000 in 1925 and $15,501,000 in 1924.

The dairy industry continued to increase production during 1926 that met generally with good prices. Total value of the industry to farmers in 1926 was $10,028,000 compared with $8,603,000 in 1925 and $7,282,000 in 1924. Poultry and bees are other livestock items have been growing steadily and have recorded gains again in 1926 income.

Miscellaneous sources of crop income including flax, potatoes, beans, peas for seed and canning, sugar beets, apples and alfalfa seed show mixed changes in relative contributions to income in 1926.

1926 PRICE MOVEMENTS

One of the most important considerations of the grower of crops and the breeder of livestock is the trend of prices for the commodities he is producing and the relation of these prices to the prices of the things he buys.

Since the war the recession from high war prices for agricultural commodities has been greater in most cases than was the drop in prices of most non-agricultural commodities. This explains the situation where with many farm products selling at levels above those prevailing in 1913, the farmer and livestock producer has been buying less for his dollar than he did with the generally lower farm prices of 1913.

To measure this discrepancy, it is necessary to compute the percentage that present farm prices bear to pre-war prices and the percentage present non-agricultural commodity prices bear to pre-war non-agricultural commodity prices. Such percentages, using the pre-war prices as 100 per cent, are called index numbers and by dividing the index of agricultural prices by the index of non-agricultural commodity prices, we obtain the purchasing power of the farmers' dollar.

A MONTANA STRAWBERRY CREW

INDEX NUMBERS OF FARM PRICES OF AGRICULTURAL PRODUCTS AND OF WHOLESALE PRICES OF NON-AGRICULTURAL COMMODITIES

Index numbers of farm prices (August 1909-July, 1914=100)

Year and Month	Grains	Fruits and Vegetables	Meat Animals	Dairy and Poultry Products	Cotton and Cotton Seed	Unclassified	All Groups	Index of Non-Agricultural Prices*	Relative Purchasing Power of Farm Products†
1919	231	189	206	182	247	162	209	199	105
1920	231	249	173	197	248	152	205	241	85
1921	112	148	108	151	101	90	116	167	69
1922	105	152	113	135	156	94	124	168	74
1923	114	136	106	147	216	109	135	171	79
1924	129	124	109	137	211	100	134	162	83
1925	156	160	139	143	177	92	147	165	89
November	138	194	136	162	144	95	144	166	87
December	140	194	136	163	139	92	143	165	87
1926									
January	143	214	140	153	138	87	143	165	87
February	140	218	146	144	142	87	143	164	87
March	133	220	147	137	133	85	140	162	87
April	131	253	146	133	135	83	140	160	88
May	131	240	148	131	130	82	139	160	87
June	130	216	154	130	132	81	139	160	87
July	125	195	152	131	126	85″	136″	159	85
August	128	166	144	130	130	89″	133″	160	83″
September	121	136	148	139	134	93	134	161	83
October	123	136	148	144	94	97	130	160	81
November	121	142	142	157	88	97	130	161	80
December	120	137	140	161	81	91	127	.....	.....

*Computed for the Bureau of Agricultural Economics by the Bureau of Labor and Statistics from wholesale prices of all commodities other than those originating on United States farms. 1910-1914=100.

†Index numbers of all groups of farm prices divided by the index numbers of wholesale prices of non-agricultural commodities.

″Revised.

In the foregoing table it will be noted that the index representing all agricultural groups continued to fall steadily from 143 per cent in January 1926 to 127 per cent in December 1926. During this period the index representing non-agricultural commodity prices dropped only 4 points from 165 to 161 in November.

A principal cause of the decline in the farm price index was the fall in prices for grain and cotton, the former dropping 23 points and the latter 57 points. Fruits and vegetables of lesser importance in the total dropped 77 points, dairy products gaining 8 points, unclassified products 4 points, while the index for meat animals finished unchanged after scoring a material gain during the first half of the year.

SITUATION BETTER IN MONTANA

Considering the fact that cotton and cottonseed must be eliminated in considering the purchasing power of the Montana farm dollar and that grain, meat animals and dairy and poultry products comprise more than 80 per cent of Montana's surplus of farm products, purchasing power of the Montana farm dollar during 1926, has not been impaired to the extent indicated for the national average.

Computation of the purchasing power of the Montana farm dollar as of date November 1, 1926, in terms of the national averages, but weighted according to the importance of each group in Montana exports in the past three years was made as follows:

Group	Purchasing Power U. S. Average November				Weights—(Percentage of Montana farm income from each item)			
	1923	1924	1925	1926	1923	1924	1925	1926
Grains	68	92	83	75	40%	53%	37%	40%
Meat Animals	61	72	82	88	34	26	37	36
Dairy and Poultry	102	94	98	97	11	9	11	11
Fruits and Vegetables	70	67	117	88	3	2	3	2
Cotton	238	179	87	59	0	0	0	0
Unclassified	59	66	57	60	12	10	12	11

Weighting the U. S. averages by the Montana weights gives the following average purchasing power of all farm products for Montana as compared with the national averages:

NOVEMBER PURCHASING POWER CENTS

	1923	1924	1925	1926
Montana	68	84	82	81
United States	83	86	87	80

In this connection it is noted that the Montana farm dollar purchasing power has improved considerably since 1923 when low grain and livestock prices discounted the Montana farm dollar much more than in the national average. Improvement in the purchasing power of these groups since 1923 is reflected in the Montana farm dollar in 1926 whereas it is over-balanced in the national average by the big slump in purchasing power of cotton.

On the basis of national averages, therefore, Montana farm dollar purchasing power, while not fully reflecting the upward swing of the national average in 1924 and 1925, has on the other hand not shrunk during the past year to the same extent as the national average. Montana farmers, in other words, will buy more for their farm dollar in 1926 than will be bought by the average farm dollar throughout the United States.

PURCHASING POWER OF 1926 INCOME

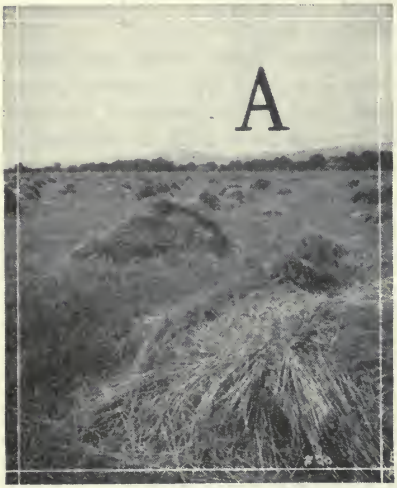
It is evident that income each year must be considered from the standpoint of purchasing power and that changes in total numbers of dollars may be partly offset by changes in purchasing power of these dollars. In the case of 1926 income, each dollar on the basis of November first purchasing power as computed above, would have been worth three cents less in terms of things farmers buy than the 1924 dollar and one cent less than the 1925 dollar. On this basis 1926 income would buy slightly less than the 1924 income, and not quite as much more than the 1925 income as indicated by the total numbers of dollars.

ONION SETS GROWN FOR SEED

A new enterprise of the diversified farmer in Montana

CROP PRODUCTION STATISTICS

TOTAL TONNAGE PRODUCED IN 1926, 1925 AND 1924



ALL principal crops produced in Montana in 1926 show a gross tonnage of 4,845,058 compared with 4,698,797 tons for the same crops in 1925 and 5,396,660 tons for these crops in 1924.

The estimates above will closely approach the total tonnage of all crops and for comparative purposes may be so used. In this comparison the year 1924 saw the greatest tonnage yet produced in the state, which would place the 1926 output as the second largest.

More acreage, however, was used in 1926 production than in either of the preceding years, the estimates of total acreage, including fruit crops, being 7,115,000 acres in 1926, 6,797,000 acres in 1925 and 6,595,000 acres in 1924. In per acre out-turn for all crops, 1926 production was only slightly higher than in 1925 and moderately below that of 1924.

1926 production was more spotted as between crops and between different sections of the state than any in recent years. In general yields on small grain crops averaged higher than in 1925, with corn yields well below those of any recent year and hay yields slightly below last year but better than average. Geographically the east central and southeastern sections of the state experienced the poorest crop yields since 1921. The rest of the state ranged from average to well above average in some sections of central and south central Montana.

The following table shows the production estimates of the past three years expressed in tons to afford a better comparison of the total crop output of the state.

TONNAGE PRODUCED IN 1926, 1925 AND 1924

CROP	1926 Tonnage	1925 Tonnage	1924 Tonnage
Corn	118,470	197,520	226,800
All Wheat	1,339,950	1,050,630	1,553,970
Oats	264,160	217,792	259,600
Barley	103,104	78,624	62,400
Rye	38,520	30,000	33,600
Flax	22,512	30,744	59,920
All Hay	2,484,000	2,631,000	2,708,000
Potatoes	89,250	113,400	89,760
Beans	11,480	12,936	16,800
Seed Peas	14,560	15,630	11,760
Canning Peas	377	341	210
Alfalfa Seed	1,800	2,340	1,410
Sugar Beets	348,000	315,000	365,000
Cherries	325	260	200
Clover Seed	750	660	270
Apples	7,800	1,920	6,960
Total	4,845,058	4,698,797	5,396,660

ACREAGE CHANGES 1926

In the following table is shown the acreage distribution of the various crops as estimated for 1926 and compared with revised estimates for 1925 and the census base of 1924.

	Acres 1924	Acres 1925	Acres 1926
TOTAL LAND AREA	93,523,840	.....	.....
Land in Farms	32,735,723	.....	.....
Pasture Land	22,714,811	.....	.....
Improved Pasture Land	4,144,050		
Wild	17,249,146		
Woodland	1,311,615		
Other Land	1,546,688	.....	.....
Total Crop Land	8,650,000	8,691,000	8,751,000
Total Acres in Crops	6,595,000	6,797,000	7,110,000
Grain Crops Total	4,526,000	4,490,000	4,875,000
Corn	420,000	399,000	459,000
Wheat	3,163,000	3,250,000	3,595,000
Winter Wheat	620,000	224,000	448,000
Spring Wheat	2,543,000	3,026,000	3,147,000
Durum Wheat Included Above	39,000	32,000	30,000
Oats	550,000	605,000	635,000
Barley	104,000	156,000	179,000
Rye	80,000	80,000	107,000
Other Seed Crop Totals	320,000	347,000	269,000
Dry Edible Beans	25,000	37,000	41,000
Seed Peas	24,000	28,000	26,000
Flaxseed	246,000	244,000	171,000
Clover Seed	3,000	7,000	5,000
Alfalfa Seed	19,000	28,000	23,000
All Hay and Forage Acreage	1,879,000	1,882,000	1,888,000
Timothy	100,000	100,000	101,000
All Clover	51,000	55,000	52,000
Timothy and Clover Mixed	157,000	157,000	159,000
Alfalfa Hay	598,000	604,000	610,000
Grains Cut for Hay	190,000	211,000	212,000
All Other Tame Hay	110,000	105,000	105,000
Wild Hay Cut	673,000	650,000	645,000
Vegetables—			
Potatoes	34,000	35,000	35,000
Other Vegetables	5,000	5,000	5,000
Miscellaneous Crops—			
Sugar Beets	31,000	30,000	30,000
Canning Peas	1,900	3,100	2,900
Crop Failure	308,000	373,000	481,000
Idle and Fallow Crop Lands	1,750,000	1,800,000	1,100,000
Fruit Crops Acres	8,000	8,000	8,000
Apple Trees Number Bearing Age	712,000	650,000	577,000
Plums	19,000	19,000	19,000

Cherries not estimated.

From this table it is apparent that in 1926 a further expansion of acreage devoted to grain crops was largely responsible for the increase in total cropped acreage compared with 1925. However, some decrease in other seed crop acreage and decrease in summer fallowed lands also help to account for the grain crop acreage increase. Abandonment of 481,000 acres of crop land in 1926 is a conservative estimate, as are all estimates in this item, since to some extent acreage not harvested is taken care of in the reported average yield per acre, especially in the case of spring grain crops. In winter wheat where abandonment occurs before preliminary forecasts of crop production are made, the abandonment is estimated and deducted from the acreage reported as harvested.

AVERAGE ACRE YIELDS 1926–1925–1924

(Bushels except for Hay—in tons)

Crop—	1926	1925	1924	Average 1920-1924
Spring Wheat	12.2	10.5	16.2	13.3
Winter Wheat	14.0	14.5	17.1	15.1
Corn	11.0	16.5	18.0	20.1
Oats	26.0	22.5	29.5	28.1
Barley	24.0	21.0	25.0	22.8
Rye	12.0	12.5	14.0	11.6
Flaxseed	4.7	4.5	8.7	6.3
Potatoes	85.0	108.0	88.0	103.8
Tame Hay	1.59	1.65	1.71	1.76
Wild Hay	.80	.90	.90	.89
Beans	10.0	12.5	12.0	12.2

Further details as to variations of yield between counties for the past two years is shown in the table of crop acreage and production at the end of this chapter. A general discussion of the growing season will be found in the general review at the beginning of this bulletin.

ACRE VALUES

Acre values are the average yields per acre multiplied by the average prices received per unit of crop production. The following table shows acre values for 1926, 1925 and 1924 compared with the average of the period 1920-1924. Lower prices generally were the factors which have reduced acre value in 1926 compared with the preceding two years.

ACRE VALUES

(Average Yield Per Acre Times Farm Price Per Bushel or Ton)

Crop—	1926 $	1925 $	1924 $	Average 1920-1924 $
Spring Wheat	13.78	14.70	20.09	13.48
Winter Wheat	14.98	19.29	21.20	15.18
Corn	10.12	15.68	17.82	14.13
Oats	13.78	11.92	13.82	11.52
Barley	15.36	15.12	17.25	13.19
Rye	9.00	9.25	12.74	8.10
Flaxseed	8.69	9.90	19.22	12.16
Potatoes	86.70	172.80	76.56	81.19
Tame Hay	16.70	16.61	17.64	17.62
Wild Hay	7.60	8.10	8.10	7.60
Beans	28.00	38.13	39.60	.....

TOTAL FARM VALUE OF PRINCIPAL CROPS

The total farm value of fourteen principal crops in 1926 was $103,773,000 compared with revised estimates of $106,379,000 for 1925 and $121,525,000 for 1924. Such valuation is based on December 1st farm prices in the years compared.

The totals show a reduction compared with 1925 of 2.6 million dollars and compared with 1924, a reduction of 17.8 million dollars. While value of 1926 farm production was slightly under that of 1925, income from all farm crops was slightly higher than in 1925 due to the fact that in the principal cash crop, wheat, a larger production more than offset the lower 1926 prices.

In order, and showing the 1925 comparative values in parenthesis, the leading crop and farm value in Montana in 1926 were as follows: ALL WHEAT, $50,077,000 ($48,482,000); ALL HAY, $25,566,000 ($25,725,000); OATS, $8,750,000 ($7,212,000); CORN, $3,633,000 ($6,255,000); POTATOES, $3,035,000 ($6,048,000); BARLEY, $2.749,000 ($2,160,000); SUGAR BEETS $2,724,000 ($2,126,000); SEED AND CANNING PEAS, $1,860,000 ($2,160,000); FLAXSEED, $1,286,000 ($2,416,000); BEANS, $1,148,000 ($1,411,000); RYE, $963,000 ($740,000); ALFALFA SEED, $837,000 ($983,000); APPLES, $390,000 ($140,000).

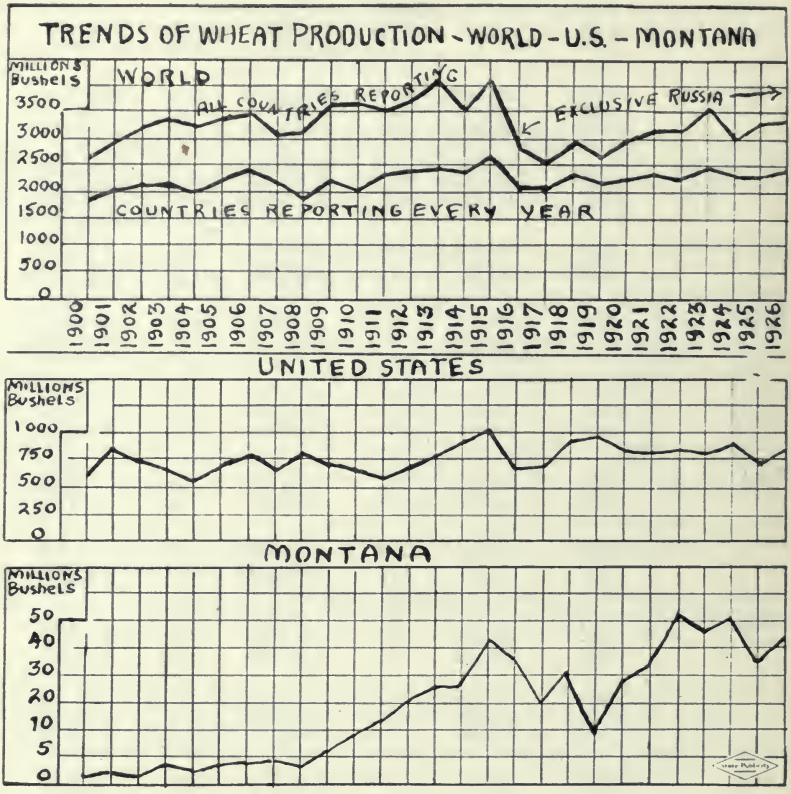
PRODUCTION IMPORTANT MONTANA CROPS*

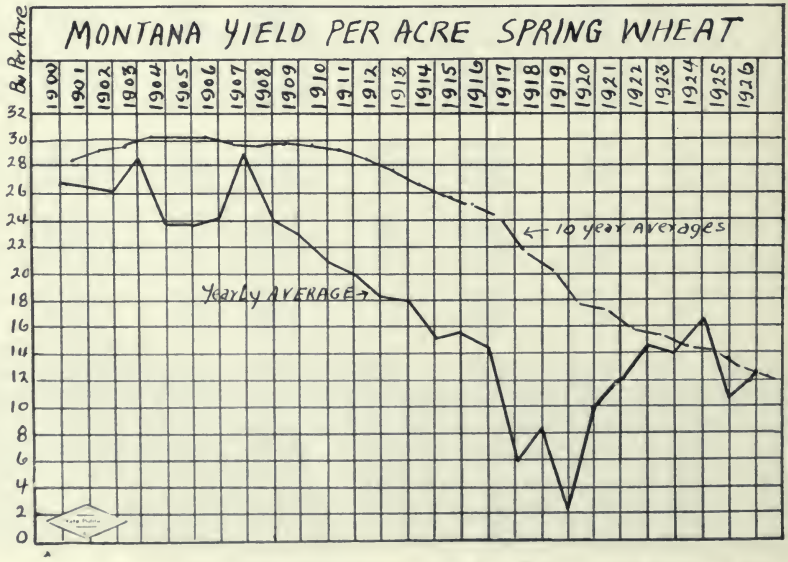
Crop	Year	Acres	Yield Per Acre	Production (Bu.)	Dec. 1 Value	Farm Value	Acre Value
ALL WHEAT	1926	3,595,000	12.4	44,665,000	$1.12	$50,095,000	$13.92
	1925	3,250,000	10.8	35,021,000	1.39	48,802,000	15.02
	1924	3,163,000	16.4	51,799,000	1.24	64,230,000	20.33
SPRING WHEAT	1926	3,147,000	12.2	38,393,000	1.13	43,384,000	13.78
	1925	3,026,000	10.5	31,773,000	1.40	44,482,000	14.70
	1924	2,543,000	16.2	41,197,000	1.24	51,084,000	20.09
WINTER WHEAT	1926	448,000	14.0	6,272,000	1.07	6,711,000	14.98
	1925	224,000	14.5	3,248,000	1.33	4,320,000	19.29
	1924	620,000	17.1	10,602,000	1.24	13,146,000	21.20
ALL HAY	1926	1,884,000	1.32	2,484,000	10.29	25,566,000	13.57
	1925	1,882,000	1.40	2,631,000	9.78	25,725,000	13.67
	1924	1,879,000	1.44	2,708,000	9.78	26,474,000	14.09
OATS	1926	635,000	26.0	16,510,000	.53	8,750,000	13.78
	1925	605,000	22.5	13.612,000	.53	7,214,000	11.92
	1924	550,000	29.5	16,225,000	.47	7,623,000	13.86
BARLEY	1926	179,000	24.0	4,296,000	.64	2,749,000	15.36
	1925	156,000	21.0	3,276,000	.72	2,359,000	15.12
	1924	104,000	25.0	2,600,000	.69	1,794,000	14.25
RYE	1926	107,000	12.0	1,284,000	.75	963,000	9.00
	1925	80,000	12.5	1,000,000	.74	740,000	9.25
	1924	80,000	14.0	1,120,000	.91	1,019,000	12.74
FLAXSEED	1926	171,000	4.7	804,000	1.85	1,486,000	8.69
	1925	244,000	4.5	1,098,000	2.20	2,416,000	9.90
	1924	246,000	8.7	2,140,000	2.21	4,729,000	19.22
CORN	1926	359,000	11.0	3,949,000	.92	3,633,000	10.12
	1925	399,000	16.5	6,584,000	.95	6,255,000	15.68
	1924	420,000	18.0	7,560,000	.99	7,484,000	17.82
POTATOES	1926	35,000	85	2,975,000	1.20	3,570,000	86.70
	1925	35,000	108	3,780,000	1.60	6,048,000	172.80
	1924	34,000	88	2,992,000	.87	2,603,000	76.56
APPLES	1926	.....	.....	325,000	1.20	390,000	.....
	1925	.....	.....	80,000	1.75	140,000	.....
	1924	.....	.....	290,000	1.29	374,000	.....
BEANS	1926	41,000	10.0	410,000	2.80	1,148,000	28.00
	1925	37,000	12.5	462,000	3.05	1,411,000	38.13
	1924	25,000	12.0	300,000	3.30	990,000	39.60
SEED PEAS	1926	26,000	20.0	520,000	2.00	1,040,000	40.00
	1925	28,000	20.0	560,000	2.10	1,176,000	42.00
	1924	24,000	17.5	420,000	2.25	945,000	39.38
SUGAR BEETS	1926	30,000	11.60	348,000	7.82	2,724,000	90.71
	1925	30,000	10.50	315,000	6.75	2,126,000	70.88
	1924	31,000	10.50	326,000	10.00	3,260,000	105.00
ALFALFA SEED	1926	23,000	2.7	62,000	13.50	837,000	36.45
	1925	28,000	2.8	78,000	12.60	983,000	36.40
	1924	19,000	2.5	48,000	12.50	600,000	31.25
CLOVER SEED	1926	5,000	5.0	25,000	16.00	400,000	80.00
	1925	7,000	3.1	22,000	20.45	450,000	63.40
	1924	3,000	3.0	9,000	14.00	126,000	42.00
CANNING PEAS	1926	Cases of Peas Packed		316,000	2.60 per cs.	$822,000	
	1925	Cases of Peas Packed		332,400	2.96 per cs.	$984,000	

TOTAL VALUE SIXTEEN PRINCIPAL CROPS ABOVE:

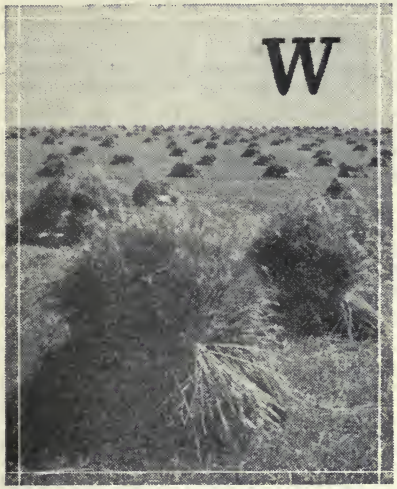
1926	$104,173,000
1925	106,829,000
1924	122,251,000

*Production and yield in bushels except for hay and sugar beets in tons.


TRENDS OF WHEAT PRODUCTION - WORLD - U.S. - MONTANA
MILLIONS Bushels
WORLD
ALL COUNTRIES REPORTING
EXCLUSIVE RUSSIA
COUNTRIES REPORTING EVERY YEAR
3500
3000
2500
2000
1500
1000
500
0
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926
UNITED STATES
MILLIONS Bushels
1000
750
500
250
0
MONTANA
MILLIONS Bushels
50
40
30
20
10
5
0


MONTANA YIELD PER ACRE SPRING WHEAT
Bu. Per Acre
1900 1901 1902 1903 1904 1905 1906 1907 1908 1909 1910 1911 1912 1913 1914 1915 1916 1917 1918 1919 1920 1921 1922 1923 1924 1925 1926
32
30
28
26
24
22
20
18
16
14
12
10
8
6
4
2
0
10 year Averages
Yearly AVERAGE

WHEAT



WHEAT, the most important Montana crop, is likewise one of the most important crops in the United States and one of the most important crops in the world agriculture. It is important in Montana because the bulk of the crop average of the state is devoted to its production and more than eighty per cent of Montana farms have wheat acreage. It is the most important single export product of Montana farms, contributing in 1926, $40,963,000 or more than thirty per cent of the total crop and livestock income. Similar reasons make the wheat crop important in the United States and the world. It is the national and inter-national bread crop.

Prices Montana farmers receive for wheat are to a large extent based on world market conditions, making it necessary that Montana farmers give some consideration to trends of wheat production both in the United States and the World at large.

WHEAT PRODUCTION TRENDS

Trends of production in the World, in the United States, and in Montana for the past twenty-five years are shown on the opposite page. The general trend of world production preceding the war was upward and with the elimination, of a large extent, of Russian surplus since the war, there has been a strong increase in wheat production in Canada and the southern hemisphere, notably Argentina. Should Russia return to pre-war production, and there is a trend in this direction, world production may be expected to continue an upward trend. Production in the United States has had a slightly downward trend since the war, due to adjustments made by wheat growers to the drop in wheat prices that immediately followed the war. In Montana the trend of production of wheat has been strongly upward since 1919.

Compared with the older wheat growing areas of the nation, Montana has had some advantage in lower priced wheat lands and premiums on the milling quality of her spring wheat which represents the bulk of Montana wheat production. These advantages have apparently enabled Montana farmers to continue expansion during the post-war period.

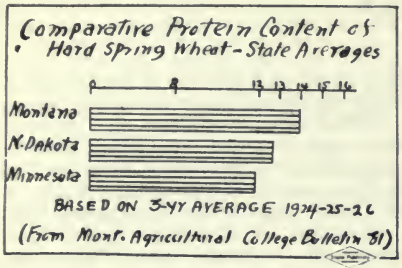
To what extent Montana will be able to continue expansion of wheat acreage will depend upon the extent to which wheat will continue the first choice over alternative crops, with wheat marketing conditions outside Montana tending to become more influential factors as production increases.

WHEAT IN MONTANA

Montana's geographical position places her at some disadvantage with the wheat areas further east in the matter of freight haul to milling centers and deficit producing states. To a large extent the high milling quality of Montana wheat offsets this disadvantage. Of the 71 per cent of Montana's wheat production exported from the 1923 and 1924 production, 62 per cent went east and 9 per cent west. Comparative data for earlier years is not available, but it is apparent that there has been some increase in west bound wheat in recent years and with the development of the west coast population, Montana will find a closer market that will gradually increase its consumptive demand for Montana wheat.

There has also been a steady increase in the amount of wheat milled in the state of Montana during the past twenty years, until in 1924 nearly 20 per cent of the state production was ground within the state. In 1925 about 22 per cent was ground.

MONTANA SPRING WHEAT QUALITY

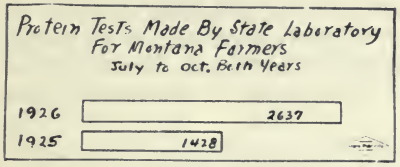


Montana also leads the spring wheat belt in average protein content of hard spring wheat, as determined from comparative data available for the past three years. Protein is becoming more important each year as a basis of selling wheat and by reason of a higher average protein, Montana farmers are commanding a premium over growers in the eastern part of the spring wheat belt that is tending to offset the higher freights to outside eastern markets from Montana. The accompanying graph shows comparative protein content of hard spring wheat in Montana, North Dakota and Minnesota.

WINTER WHEAT BY COUNTIES FOR 1925 AND 1926

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	4,000	22	88,000	8,000	14	112,000
Lake	11,000	20	220,000	19,000	17	323,000
Sanders	1,000	21	21,000	1,000	20	20,000
NORTH CENTRAL						
Blaine	1,000	8	8,000	1,000	15	15,000
Chouteau	19,000	13	247,000	49,000	14	686,000
Hill	2,000	20	40,000	3,000	14	42,000
Pondera	.....	....	.....	1,000	16	16,000
Teton	3,000	16	48,000	3,000	20	60,000
NORTHEASTERN						
Daniels	2,000	10	20,000	3,000	14	42,000
Phillips	.....	....	.....	1,000	13	13,000
Roosevelt	1,000	15	15,000	4,000	10	40,000
Sheridan	1,000	8	8,000	1,000	12	12,000
Valley	1,000	15	15,000	2,000	13	26,000
WEST CENTRAL						
Granite	.....	....	.....	1,000	20	20,000
Missoula	3,000	20	60,000	3,000	17	51,000
Powell	3,000	10	30,000	2,000	19	38,000
Ravalli	1,000	24	24,000	1,000	28	28,000
CENTRAL						
Broadwater	6,000	21	126,000	8,000	19	152,000
Cascade	12,000	11	132,000	37,000	24	888,000
Fergus	24,000	14	336,000	46,000	14	644,000
Golden Valley	7,000	10	70,000	14,000	9	126,000
Jefferson	4,000	10	40,000	4,000	20	80,000
Judith Basin	15,000	10	150,000	29,000	12	348,000
Lewis and Clark	1,000	20	20,000	4,000	17	68,000
Meagher	.....	....	.....	1,000	20	20,000
Musselshell	7,000	10	70,000	13,000	7	91,000
Wheatland	.....	....	.....	2,000	15	30,000
EAST CENTRAL						
Dawson	1,000	11	11,000	3,000	7	21,000
Garfield	.....	....	.....	2,000	4	8,000
McCone	2,000	8	16,000	5,000	5	25,000
Prairie	.....	....	.....	4,000	5	20,000
Richland	7,000	11	77,000	8,000	6	48,000
Wibaux	1,000	8	8,000	5,000	6	30,000
SOUTHWESTERN						
Beaverhead	1,000	20	20,000	1,000	15	15,000
Madison	2,000	30	60,000	4,000	19	76,000
SOUTH CENTRAL						
Carbon	5,000	15	75,000	7,000	24	168,000
Gallatin	16,000	21	336,000	28,000	23	616,000
Park	2,000	20	40,000	2,000	15	30,000
Stillwater	12,000	15	180,000	26,000	14	364,000
Sweet Grass	4,000	17	68,000	4,000	15.2	61,000
Yellowstone	16,000	12	192,000	33,000	9	297,000
SOUTHEASTERN						
Big Horn	13,000	17	221,000	21,000	12	252,000
Carter	.....	...	.....	1,000	10	10,000
Custer	.....	....	.....	3,000	6	18,000
Fallon	5,000	10	50,000	13,000	5	65,000
Powder River	.....	....	.....	1,000	13	13,000
Rosebud	5,000	14	70,000	10,000	9	90,000
Treasure	3,000	12	36,000	6,000	9	54,000
STATE TOTALS	224,000	14.5	3,248,000	448,000	14.0	6,272,000

MONTANA FARMERS ADOPTING PROTEIN BASIS



The extent to which Montana farmers are adopting the protein basis of marketing is illustrated by the accompanying graph showing tests made by the State Grain Laboratory at Great Falls during the past two seasons.

SPRING WHEAT BY COUNTIES FOR 1925 AND 1926

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	24,000	18	432,000	25,000	12	300,000
Lincoln	2,000	15	30,000	3,000	13	39,000
Lake	16,000	20	320,000	18,000	14	252,000
Sanders	2,000	14	28,000	3,000	17	51,000
NORTH CENTRAL						
Blaine	63,000	10	630,000	66,000	12	792,000
Chouteau	158,000	8	1,264,000	152,000	15	2,280,000
Glacier	19,000	10	190,000	21,000	8	168,000
Hill	187,000	10	1,870,000	192,000	7	1,344,000
Liberty	50,000	10	500,000	56,000	7	392,000
Pondera	116,000	12	1,392,000	121,000	19	2,299,000
Teton	129,000	11	1,419,000	136,000	22	2,992,000
Toole	48,000	8	384,000	56,000	7	392,000
NORTHEASTERN						
Daniels	159,000	11	1,749,000	174,000	15	2,610,000
Phillips	67,000	10	670,000	77,000	12	924,000
Roosevelt	138,000	10	1,380,000	152,000	10	1,520,000
Sheridan	222,000	9	1,998,000	233,000	13	3,029,000
Valley	152,000	11	1,672,000	150,000	13	1,950,000
WEST CENTRAL						
Deer Lodge	1,000	16	16,000	1,000	14	14,000
Granite	1,000	15	15,000	1,000	15	15,000
Mineral	1,000	24	24,000	1,000	14	14,000
Missoula	9,000	18	162,000	11,000	15	165,000
Powell	3,000	14	42,000	3,000	15	45,000
Ravalli	9,000	20	180,000	10,000	17	170,000
CENTRAL						
Broadwater	11,000	15	165,000	12,000	24	288,000
Cascade	80,000	10	800,000	68,000	18	1,224,000
Fergus	201,000	10	2,010,000	180,000	15	2,700,000
Golden Valley	33,000	8	280,000	38,000	6	228,000
Jefferson	9,000	9	81,000	9,000	23	207,000
Judith Basin	103,000	9	927,000	100,000	17	1,700,000
Lewis and Clark	13,000	7	91,000	12,000	21	252,000
Meagher	6,000	8	48,000	6,000	17	102,000
Musselshell	41,000	8	328,000	44,000	5	220,000
Petroleum	10,000	9	90,000	9,000	5	45,000
Wheatland	36,000	9	324,000	38,000	11	418,000
EAST CENTRAL						
Dawson	90,000	8	720,000	106,000	5	530,000
Garfield	29,000	10	290,000	30,000	5.5	214.000
McCone	66,000	8	528,000	76,000	3.5	266,000
Prairie	53,000	9	477,000	62,000	3	186,000
Richland	108,000	10	1,080,000	121,000	6	726,000
Wibaux	52,000	11	572,000	60,000	3.5	210,000
SOUTHWESTERN						
Beaverhead	2,000	16	32,000	3,000	19	57,000
Madison	8,000	20	160,000	9,000	22	198,000
SOUTH CENTRAL						
Carbon	57,000	16	912,000	41,000	27	1,107,000
Gallatin	55,000	15	825,000	48,000	23	1,104,000
Park	20,000	16	320,000	20,000	25	500,000
Stillwater	74,000	14	1,036,000	79,000	15	1,185,000
Sweet Grass	30,000	12	360,000	28,000	17	476,000
Yellowstone	70,000	15	1,050,000	65,000	12	780,000
SOUTHEASTERN						
Big Horn	32,000	10	320,000	32,000	16	512,000
Carter	17,000	9	153,000	17,000	8	136,000
Custer	17,000	10	170,000	23,000	5	161,000
Fallon	70,000	10	700,000	75,000	7	525,000
Powder River	7,000	11	77,000	9,000	10	90,000
Rosebud	38,000	10	380,000	43,000	4	172,000
Treasure	10,000	10	100,000	13,000	9	117,000
STATE TOTALS	3,026,000	10.5	31,773,000	3,147,000	12.2	38,393,000

MONTANA WHEAT GRADES HIGH.

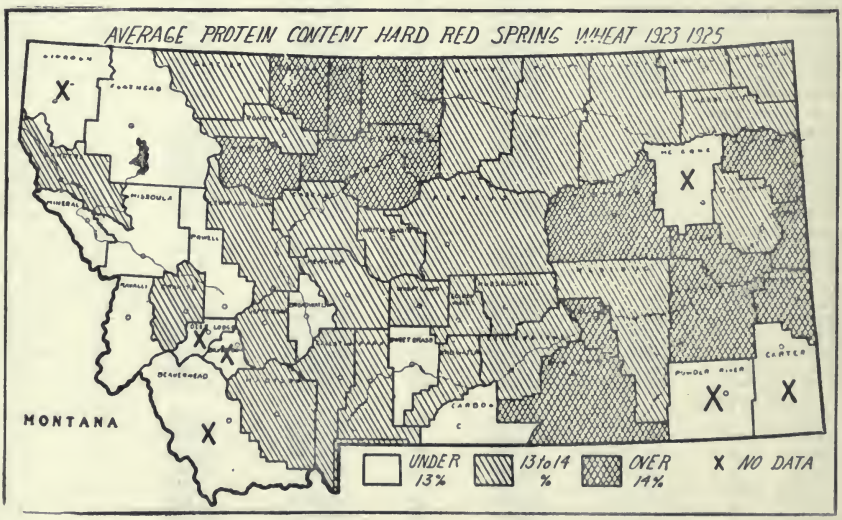
In quality Montana leads all of the important wheat producing states of the nation. In the following table is shown the comparison for the three leading states of the percentage of the wheat crop grading U. S. Number 1 as determined by the Crop Estimate Division of the U. S. Department of Agriculture from yearly surveys.

PERCENTAGE OF SPRING WHEAT IN THE SEVERAL GRADES

State	Years	No. 1	No. 2	No. 3	No. 4	No. 5	Below No. 5
Montana	1925	68.0	19.0	9.0	2.0	1.0	1.0
	1924	84.0	10.0	5.0	1.0	.0	.0
Wyoming	1925	20.0	47.0	24.0	3.0	6.0	.0
	1924	84.0	10.0	5.0	1.0	.0	.0
North Dakota	1925	49.0	20.0	17.0	9.0	4.0	1.0
	1924	65.0	19.0	10.0	4.0	1.0	1.0
South Dakota	1925	20.0	24.0	23.0	15.0	12.0	6.0
	1924	67.0	22.0	8.0	2.0	1.0	.0
Minnesota	1925	18.0	20.0	31.0	18.0	10.0	3.0
	1924	61.0	22.0	11.0	4.0	1.0	1.0
U. S. Average	1925	37.5	28.0	18.8	9.2	4.8	1.7
	1924	62.9	21.5	10.1	3.7	1.0	0.8

PROTEIN CONTENT

The average protein content in the various counties of Montana as determined by the State Agricultural College during the period 1923-1925, is shown in the following map. In this connection it will be noted most of the counties falling below thirteen per cent are unimportant producers of spring wheat. (See spring wheat acreage density map, page 27.)



YIELDS PER ACRE MONTANA WHEAT

With the rapid growth of wheat acreage in Montana during the past twenty years, and the growing proportion of the acreage that is non-irrigated, the yearly averages of wheat yields per acre show a downward trend. This trend is further emphasized by the period of abnormally low yields between 1917 and 1920.

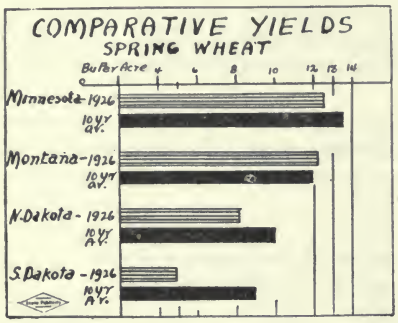
Graph on page 20 shows the yearly average yields per acre of spring wheat in Montana and the ten year average each successive year. The downward trend of the ten year average will in all probability be reserved as soon as the effect of the 1917-1920 period is left behind.

RAILROAD SHIPMENTS OF WHEAT IN BUSHELS FOR EACH COUNTY

(Year beginning July 1st and ending June 30th)

COUNTY AND DISTRICT	1925-'26 July 1 to June 30	1924-'25 July 1 to June 30	1923-'24 July 1 to June 30	1922-'23 July 1 to June 30	1921-'22 July 1 to June 30	1920-'21 July 1 to June 30
NORTHWESTERN						
Flathead	247,417	392,751	378,045	391,282	451,260	131,784
Lincoln	44,714	.....	12,195	.....	1,308	5,168
Lake	409,879	308,493	579,940	366,121	474,804	612,408
Sanders	76,014	43,488	115,175	55,391	40,548	114,988
NORTH CENTRAL						
Blaine	567,868	780,066	799,450	575,526	417,252	434,112
Chouteau	1,198,335	2,148,579	1,654,455	1,718,472	1,756,644	1,426,368
Glacier	116,256	164,439	211,380	172,928	78,480	105,944
Hill	1,421,906	1,933,857	686,985	1,833,307	643,536	715,768
Liberty	335,355	502,830	223,575	464,744	100,716	219,640
Pondera	1,603,742	1,239,408	1,875,320	1,691,452	609,528	1,624,044
Teton	1,420,416	1,061,379	2,004,045	1,361,808	548,052	1,109,828
Toole	360,693	392,751	581,295	495,817	151,728	444,448
NORTHEASTERN						
Daniels	1,891,403	3,004,749	2,594,825	2,776,305	1,934,532	493,544
Phillips	639,410	834,426	937,660	875,457	688,008	487,084
Roosevelt	1,415,943	2,943,594	1,424,105	2,695,245	1,908,372	745,484
Sheridan	2,237,191	3,879,945	2,803,495	3,673,369	2,602,920	762,280
Valley	1,205,788	1,876,779	1,512,180	1,879,241	1,773,648	304,912
WEST CENTRAL						
Deer Lodge	8,943	1,359	.....	2,702	6,540	9,044
Granite	65,581	24,462	56,910	83,762	119,028	55,556
Mineral	1,490	6,795	21,680	22,967	18,312	11,628
Missoula	190,780	74,745	207,315	180,577	200,124	217,056
Powell	37,262	4,077	12,195	27,020	48,396	25,840
Ravalli	186,308	51,642	127,370	131,047	197,508	160,208
CENTRAL						
Broadwater	217,608	131,823	222,220	282,359	163,500	196,384
Cascade	722,876	1,142,919	1,470,175	1,328,933	1,090,872	1,050,396
Fergus	2,307,243	4,628,754	4,169,335	3,981,397	3,497,592	3,732,580
Golden Valley	116,256	281,313	386,175	445,313	223,668	795,872
Jefferson	76,014	31,257	69,105	137,802	65,400	109,820
Judith Basin	1,082,079	1,588,671	1,905,130	1,363,159	1,198,128	1,474,172
Lewis and Clark	78,995	122,310	228,995	260,743	167,424	210,596
Meagher	50,676	43,488	113,820	82,411	54,936	80,104
Musselshell	271,265	457,983	395,660	566,069	215,820	571,064
Petroleum	140,104	.....	.....	.....	.....	.....
Wheatland	228,042	247,338	555,550	399,896	319,152	580,108
EAST CENTRAL						
Dawson	1,125,303	1,465,002	991,860	1,561,756	1,105,260	646,000
Prairie	460,554	687,654	524,385	737,646	375,396	403,104
Richland	842,114	1,706,904	685,630	1,334,788	514,044	705,432
Wibaux	432,235	517,779	304,875	498,519	300,684	174,420
SOUTHWESTERN						
Beaverhead	35,771	13,590	59,620	113,484	141,264	86,564
Madison	242,946	129,105	199,185	378,280	256,368	328,168
SOUTH CENTRAL						
Carbon	754,176	804,528	744,855	847,077	779,568	819,128
Gallatin	2,034,488	1,359,000	1,906,485	1,919,771	1,514,664	2,014,228
Park	506,759	263,646	658,530	516,082	474,804	426,360
Stillwater	830,190	1,098,072	1,231,695	1,091,608	1,068,636	1,320,424
Sweet Grass	93,899	145,413	211,380	231,021	200,868	229,976
Yellowstone	876,395	1,456,848	1,112,455	1,288,854	970,536	1,727,404
SOUTHEASTERN						
Big Horn	514,211	640,989	471,540	899,766	350,544	813,960
Custer	381,560	441,675	349,590	557,512	231,516	184,756
Fallon	640,900	955,377	592,135	1,113,224	408,096	529,720
Rosebud	387,522	570,780	323,845	572,824	224,976	293,284
Treasure	80,485	169,875	60,975	187,087	79,788	121,448
TOTAL	31,213,360	42,771,807	38,764,800	44,171,921	30,764,784	29,842,616

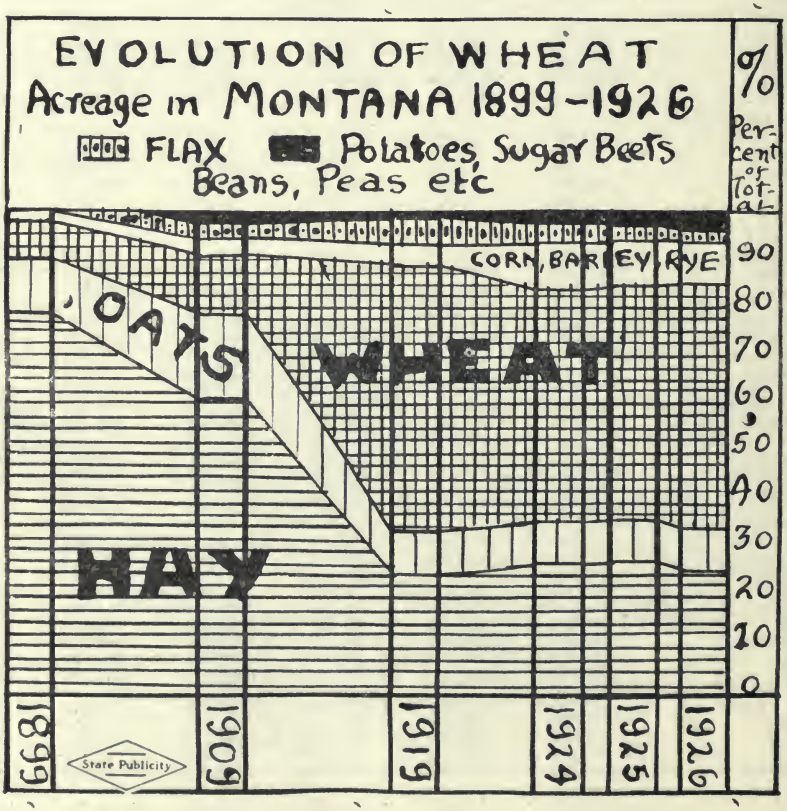
MONTANA SPRING WHEAT YIELDS COMPARED WITH THOSE OF THE OTHER SPRING WHEAT STATES



Montana now ranks next to Minnesota in average yields per acre of spring wheat, being well ahead of North Dakota, the principal spring wheat growing state. Montana's ten year average yield, unless there is further improvement in the average of Minnesota, promises ultimately to exceed Minnesota's when the effect of the 1917-1920 period of low yields has been passed. In the accompanying graph is shown both the 1926 average yield per acre in the important spring wheat states and the ten year averages as computed in October, 1926, from preliminary estimates of yields in all of the states.

SUITABILITY OF MONTANA CLIMATE FOR WHEAT

A variety of climatic conditions and soils characterizes the distribution of wheat production throughout the world. The general requirements of wheat call for a growing season of at least ninety days in length and moderate rainfall. Wheat is most extensively produced, however, in areas where the average annual rainfall is less than thirty inches. The bulk of Australia's production is grown with less than twenty-five inches. In the United States a large part of the production receives from twenty-five inches down to less than fifteen inches, with



some localities where the normal average is only about ten inches. Similarly low annual rainfall characterizes a large part of the Canadian acreage and the southern areas of the Argentine and parts of Russia.

Where annual rainfall is low, the seasonal distribution through the wheat growing season is often a factor, as in the plains region of the United States.

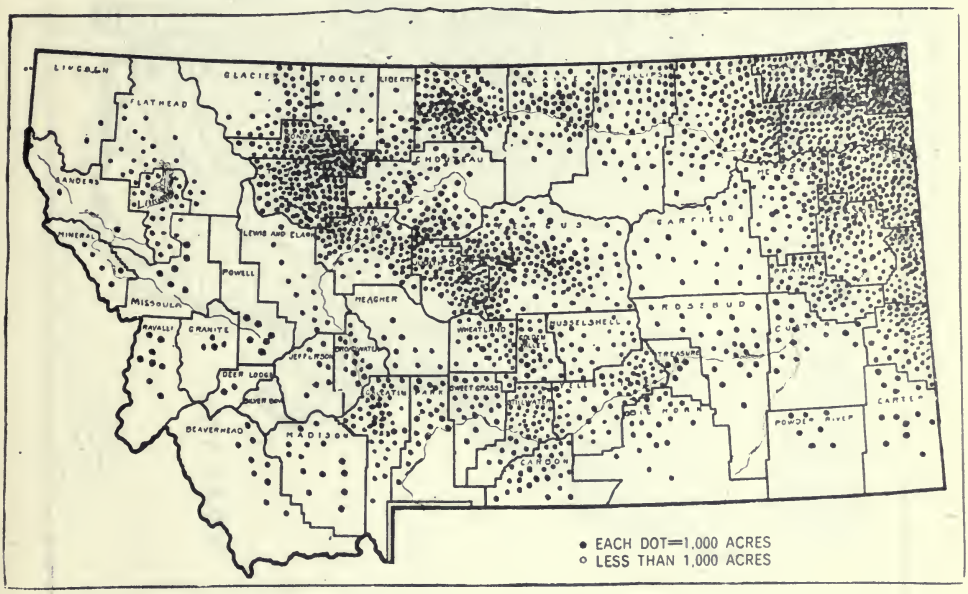
A somewhat dry climate is favorable for hard, dark wheats, the wheats of the more humid areas having a tendency to soft and starchy composition. The ideal climate for wheat is one characterized by a wet winter, a cool and rather moist spring with a warm summer becoming drier as it becomes warmer. Wheat requires only light rains after blossoming time and rather dry air toward harvest, but without hot, scorching winds.

Montana's grain belt lies largely within the range of ten to twenty inches of annual rainfall, with such important producing areas as the Judith Basin and Gallatin, as well as other mountain valleys, ranging well above this average. Very small and scattered areas of the state fall below ten inches. A characteristic of Montana annual precipitation east of the Continental Divide is that sixty to seventy per cent falls between April 1st and September 30th, with the seventy per cent including most of the eastern half of the state. (See map on following page).

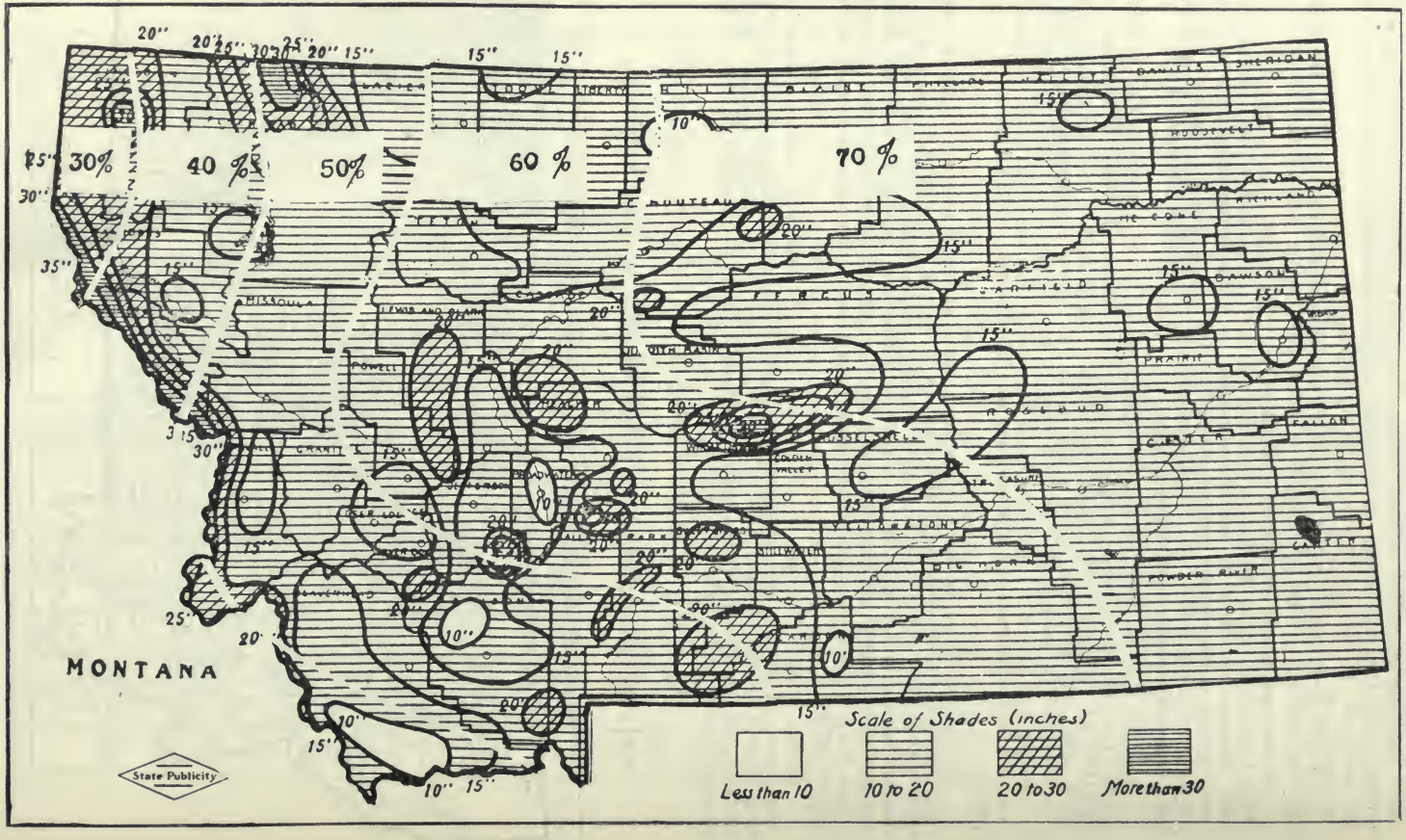
Montana's winter wheat acreage is densest in central and south central Montana and tends to coincide with the areas of largest annual rainfall. In a general way the higher annual precipitation records mean more fall moisture and a heavier winter snowfall, both of which conditions are necessary for fall growth and winter protection of winter wheat. Moreover the westward location of winter wheat toward the mountains brings the crop within a more equable zone of winter temperature.

Spring wheat, however, is the large bulk of Montana's wheat production. The heavy producing area lies generally east of the main winter wheat acreage and largely in the eastern half of the state, where the annual rainfall ranges between ten and twenty inches and an average of sixty to seventy per cent of this amount comes within the growing season of the year.

DISTRIBUTION OF MONTANA SPRING WHEAT ACREAGE



AVERAGE ANNUAL RAINFALL AND PERCENTAGE FALLING BETWEEN APRIL 1 AND SEPTEMBER 30



The precipitation in May and June and the temperature in June are important factors in spring wheat yields in the spring wheat region generally, although in Montana the critical period for temperature extends into July and, in the case of late grain, hot wind damage is a factor at even later dates.

In North Dakota during a period of twenty-six years when May and June rainfall was below normal twelve times and above normal thirteen times, the acre yield of spring wheat during the thirteen years with rainfall above normal was nine times above average and four times below. During these same years in South Dakota, yields of spring wheat were ten times above average and three times below.

A combination of May and June rainfall above normal and June temperature below normal occurred during this same period eleven times in North Dakota and nine times in South Dakota and of these years seventy-three per cent in North Dakota and ninety per cent in South Dakota had yields of spring wheat above average.

WEATHER AND YIELD RELATIONSHIPS IN MONTANA

In Montana during the past twenty years, the yield of spring wheat shows a closer relationship with combined May and June rainfall than with any other single factor. In this data where combined May and June rainfall has been eight times above and twelve times below normal, spring wheat yields have been nine times above and eleven times below the adjusted average yield of spring wheat. May rainfall alone was five times above normal and fifteen times below. June rainfall alone was eleven times above normal and nine times below and July rainfall ten times above and ten times below normal. May, June and July rainfall combined was eight times above normal and twelve times below, or the same as for May and June rainfall combined.

The combination of May and June rainfall above normal with June temperature below normal occurred six times in this period and of these years sixty-seven per cent had yields above average. For June temperature alone nine years were below normal in this period and of these years fifty-six per cent had yields above average. For July temperature alone eight years were below normal and of these years eighty-seven percent had yields above average. July temperatures above normal occurred twelve times in this period and of these years seventy-five per cent had yields below average.

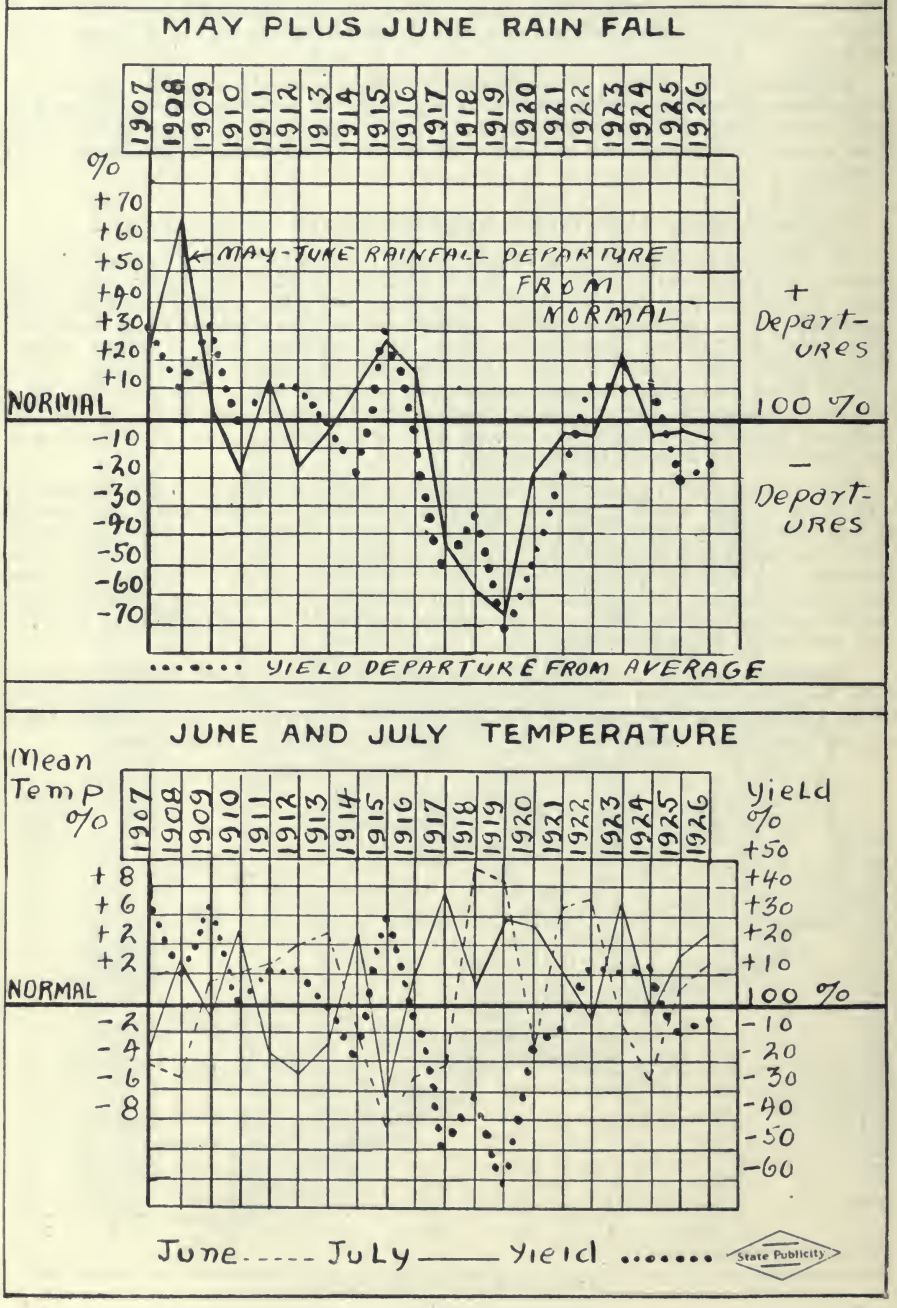
From this data it is apparent that combined May and June rainfall together with July temperatures are important factors in determining yields of spring wheat in Montana. A summary of these factors is shown in the following table as plus and minus departures from the monthly normals and averages.

	PRECIPITATION				TEMPERATURE			
Year	May Rainfall	June Rainfall	July Rainfall	May plus June	May June July	June Mean	July Mean	Average Spring Wheat Yield
1926	−	−	−	−	−	+	+	−
1925	−	+	−	−	−	+	+	−
1924	−	+	−	−	−	−	−	+
1923	−	+	+	+	+	−	+	+
1922	+	−	+	−	+	+	−	+
1921	−	+	N*	−	−	+	+	−
1920	−	−	−	−	−	−	+	−
1919	−	−	−	−	−	+	+	−
1918	−	−	+	−	−	+	+	−
1917	−	−	−	−	−	−	+	−
1916	−	+	+	+	+	−	+	−
1915	+	+	+	+	+	−	−	+
1914	−	+	−	+	−	−	+	−
1913	−	+	+	−	+	+	−	−
1912	+	−	+	−	−	+	−	+
1911	+	+	−	+	+	+	−	+
1910	−	−	−	−	−	+	+	−
1909	−	+	+	+	+	+	−	+
1908	+	−	−	+	−	−	+	+
1907	−	+	+	+	+	−	−	+
Sums	5+	11+	10+	8+	8+	9−	8−	9+
	15−	9−	10−	12−	12−	11+	12+	11−

*No departure from normal.

(See Graphs on following page.)

INFLUENCE OF MAY-JUNE RAIN FALL AND JUNE & JULY TEMPERATURES ON YIELD OF SPRING WHEAT MONTANA - 1907-1926



COST OF PRODUCING WHEAT

Montana wheat growers are producing wheat at about the same cost per bushel as are wheat growers in North Dakota and Kansas, the two largest wheat producing states. Present indications point to some further lowering of preparation and planting costs, and harvesting and threshing costs in Montana by a more efficient use of labor and machinery. In these two items Montana has probably been higher than North Dakota and Kansas in past years. Marketing expense is another item in which Montana by reason of her geographical position has exceeded the other two states.

Comparative statistics as to relative average costs of producing crops are still too limited to permit definite conclusions as to detailed production costs. However, annual surveys on production costs made by the U. S. Division of Crop Estimates have provided a basis from which comparisons may be made more closely as the records increase. A summary of the results of the 1923 and 1924 surveys for Montana, North Dakota and Kansas is presented herewith as throwing some light on respective costs. These data show that 283 farms in Montana in 1923 averaged a lower production cost per bushel of wheat than did 411 farms in North Dakota and 545 farms in Kansas. In 1924 the average of 147 Montana farms was slightly higher than that of 350 Kansas farms and well above the average of 269 North Dakota farms.

It is probable that if a larger number of farms had been secured in Montana in 1924 that a cost per acre more comparable with those of North Dakota and Kansas would have been shown. In any case the sample is more representative for the two latter states compared with Montana. One difficulty of all such sample data is that of securing a large number of identical farms each year. This difficulty will be largely overcome when farmers have a better understanding of the purposes and benefits of this type of data. There has already been some improvement along this line during the few years in which the surveys have been made.

Variations in yield per acre from year to year naturally greatly affect the cost per bushel. The yield also influences to some extent the cost per acre as when a heavy yield increases the expense of harvesting the crop.

AVERAGE COSTS OF PRODUCING WHEAT

	1923			1924		
	Mont.	N. Dak.	Kansas	Mont.	N. Dak.	Kansas
Number Farms	283	411	545	147	269	350
Average Acreage in Wheat	135	147	124	140	147	128
Average Yield Per Acre	16	9	13	16	15	17
GROSS COST Per Acre:						
Prepare and Plant	$ 4.71	$ 3.25	$ 3.24	$ 4.43	$ 3.35	$ 3.23
Harvest and Thresh	4.03	3.11	4.17	3.92	3.81	4.81
Market	1.84	.68	.84	1.68	1.06	.91
Miscellaneous Labor	.57	.16	.15	.50	.13	.08
Commercial Fertilizer	.02	01	.07	.....	.....	.....
Manure	.32	.25	.59	.31	.20	.38
Seed	1.10	1.34	1.22	1.11	1.49	1.35
Land Rent	3.33	2.49	4.10	3.62	2.62	4.39
Miscellaneous	2.40	1.69	1.80	1.77	1.99	1.89
TOTAL COST Per Acre	17.48	12.66	15.69	16.73	14.37	16.79
Cost Per Bushel	1.09	1.41	1.21	1.05	.90	.99
United States Average:						
Per Acre		21.02			21.88	
Per Bushel		1.24			1.22	

MONTANA SPRING WHEAT FIELD

CORN

CORN acreage in Montana has been declining from the high point reached in 1924 when 420,000 acres were harvested and total production including the equivalent of forage was 7,560,000 bushels. In 1925, 299-000 acres produced 6,584,000 bushels and in 1926, 359,000 acres produced 3,949,000 bushels. In 1926 less than a third of the crop matured ahead of frost. The bulk of the crop acreage is located in the eastern third of the state where both the 1926 and 1925 seasons were unfavorable with the 1926 season being unfavorable at planting time and an additional factor in this year's decreased acreage.

(See table pages 17 and 19 for corn acreage and production during the past three years.)

CORN BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	1,000	30	30,000	1,000	11	11,000
Lake	1,000	34	34,000	1,000	15	15,000
Sanders	1,000	34	34,000	1,000	10	10,000
NORTH CENTRAL						
Blaine	6,000	17	102,000	7,000	11	77,000
Chouteau	13,000	18	234,000	14,000	15	210,000
Hill	9,000	29	261,000	10,000	9	90,000
Liberty	1,000	18	18,000	1,000	10	10,000
Pondera	2,000	18	36,000	3,000	11	33,000
Teton	3,000	15	45,000	2,000	13	26,000
Toole	2,000	20	40,000	2,000	9	18,000
NORTHEASTERN						
Daniels	5,000	15	75,000	5,000	12	60,000
Phillips	25,000	14	350,000	23,000	12	276,000
Roosevelt	20,000	15	300,000	19,000	12	228,000
Sheridan	13,000	10	130,000	14,000	11	154,000
Valley	17,000	19	325,000	16,000	9	144,000
WEST CENTRAL						
Ravalli	1,000	25	25,000	1,000	14	14,000
CENTRAL						
Cascade	7,000	25	175,000	6,000	16	96,000
Fergus	14,000	20	280,000	12,000	16	192,000
Golden Valley	10,000	14	140,000	10,000	12	120,000
Judith Basin	3,000	14	42,000	1,000	10	10,000
Lewis and Clark	1,000	25	25,000	1,000	9	9,000
Musselshell	13,000	11	143,000	12,000	9	108,000
Wheatland	2,000	12	24,000	2,000	10	20,000
EAST CENTRAL						
Dawson	21,000	18	378,000	17,000	9	153,000
Garfield	18,000	12	216,000	16,000	6	96,000
McCone	19,000	18	342,000	15,000	7	105,000
Prairie	15,000	14	210,000	13,000	10	130,000
Richland	28,000	15	420,000	23,000	11	253,000
Wibaux	7,000	15	105,000	6,000	10	60,000
SOUTHWESTERN						
Beaverhead	1,000	12	12,000	.....	.....	.....
Madison	1,000	15	15,000	1,000	12	12,000
SOUTH CENTRAL						
Carbon	7,000	30	210,000	6,000	17	102,000
Gallatin	1,000	16	16,000	1,000	17	17,000
Stillwater	7,000	18	126,000	6,000	15	90,000
Sweet Grass	1,000	15	15,000	1,000	15	15,000
Yellowstone	22,000	19	418,000	24,000	11	264,000
SOUTHEASTERN						
Big Horn	9,000	29	261,000	8,000	12	96,000
Carter	14,000	17	238,000	12,000	11	131,000
Custer	15,000	14	210,000	13,000	12	156,000
Fallon	13,000	10	130,000	10,000	10	100,000
Powder River	10,000	15	150,000	8,000	11	88,000
Rosebud	14,000	11	154,000	11,000	10	110,000
Treasure	6,000	15	90,000	4,000	10	40,000
STATE TOTALS	399,000	16.5	6,584,000	359,000	11.	3,949,000

BARLEY

Barley acreage was again increased in Montana in 1926 and with a better yield per acre, production gained substantially over 1925. The increase in barley acreage in eastern Montana apparently was intended to take the place of corn acreage which, as a result of frost and drouth damage of the preceding two years, was evidently curtailed when dry weather developed in 1926. Barley in Montana is largely utilized on the farm as feed, although some of the older barley sectons, including the Gallatin valley, ship varying quantities according to market conditions that make shipments profitable. Production in 1926 was 4,296,000 bushels compared with 3,276,000 in 1925 and 2,600,000 in 1924.

BARLEY BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED Acreage	Acre Yield (Bu.)	(Bu.) Production	1926 (DEC. EST.) Acreage	Acre Yield (Bu.)	Production (Bu.)
NORTHWESTERN						
Flathead	5,000	26	130,000	5,000	25	125,000
Lincoln	.....	....	.....	1,000	30	30,000
Lake	4,000	26	104,000	3,000	28	84,000
Sanders	1,000	29	29,000	2,000	29	58,000
NORTH CENTRAL						
Blaine	2,000	10	20,000	2,000	18	36,000
Chouteau	2,000	12	24,000	2,000	22	44,000
Glacier	1,000	20	20,000	1,000	25	25,000
Hill	7,000	14	98,000	6,000	19	114,000
Liberty	1,000	20	20,000	1,000	22	22,000
Pondera	7,000	26	182,000	7,000	30	210,000
Teton	4,000	22	88,000	4,000	32	128,000
Toole	2,000	10	20,000	2,000	15	30,000
NORTHEASTERN						
Daniels	3,000	19	57,000	4,000	25	100,000
Phillips	2,000	15	30,000	3,000	20	60,000
Roosevelt	2,000	12	24,000	3,000	19	57,000
Sheridan	4,000	10	40,000	5,000	25	125,000
Valley	5,000	15	75,000	6,000	23	138,000
WEST CENTRAL						
Deer Lodge	.....	....	.....	1,000	31	31,000
Granite	1,000	30	30,000	2,000	30	60,000
Mineral	.....	....	.....	1,000	35	35,000
Missoula	2,000	34	68,000	2,000	35	70,000
Powell	2,000	19	38,000	2,000	30	60,000
Ravalli	4,000	28	112,000	4,000	32	128,000
CENTRAL						
Broadwater	2,000	33	66,000	2,000	35	70,000
Cascade	3,000	15	45,000	4,000	30	120,000
Fergus	5,000	17	85,000	8,000	29	232,000
Golden Valley	1,000	9	9,000	2,000	30	60,000
Jefferson	1,000	30	30,000	2,000	35	70,000
Judith Basin	4,000	19	76,000	6,000	32	192,000
Lewis and Clark	1,000	30	30,000	2,000	35	70,000
Meagher	2,000	17	34,000	3,000	33	99,000
Musselshell	1,000	35	35,000	2,000	20	40,000
Wheatland	1,000	20	20,000	1,000	28	28,000
EAST CENTRAL						
Dawson	4,000	10	40,000	4,000	9	36,000
Garfield	1,000	19	19,000	1,000	10	10,000
McCone	3,000	10	30,000	2,000	7	14,000
Prairie	1,000	14	14,000	1,000	6	6,000
Richland	6,000	18	108,000	6,000	12	72,000
Wibaux	5,000	16	80,000	5,000	9	45,000
SOUTHWESTERN						
Beaverhead	2,000	48	96,000	2,000	26	52,000
Madison	1,000	32	32,000	2,000	29	58,000
SOUTH CENTRAL						
Carbon	3,000	33	99,000	3,000	36	108,000
Gallatin	9,000	34	306,000	10,000	34	340,000
Park	5,000	33	165,000	6,000	34	204,000
Stillwater	5,000	18	90,000	6,000	25	150,000
Sweet Grass	1,000	23	23,000	1,000	33	33,000
Yellowstone	5,000	27	135,000	6,000	20	120,000
SOUTHEASTERN						
Big Horn	5,000	20	100,000	5,000	18	90,000
Carter	3,000	16	48,000	2,000	14	28,000
Custer	3,000	10	30,000	3,000	10	30,000
Fallon	7,000	19	133,000	7,000	11	77,000
Powder River	2,000	16	32,000	2,000	11	22,000
Rosebud	2,000	16	32,000	2,000	8	16,000
Treasure	1,000	25	25,000	2,000	17	34,000
STATE TOTALS	156,000	21.0	3,276,000	179,000	24.0	4,296,000

FLAX

FLAX, an important cash crop in eastern and northeastern Montana, encountered an unfavorable season in 1926 that at the outset tended to curtail acreage by reason of dry soils and later damaged the crop by dry weather in July. Acreage in 1926 was reduced to 177,000 from 244,000 acres in 1925 and 246,000 acres in 1924. Production in 1926 on a basis of 4.7 bushels yield per acre, was 804,000 bushels compared with 1,098,000 bushels in 1925 and 2,140,000 bushels in 1924.

(See pages 17 and 19 for flax acreage and production during the past three years.)

FLAX BY COUNTIES FOR 1926 AND 1925

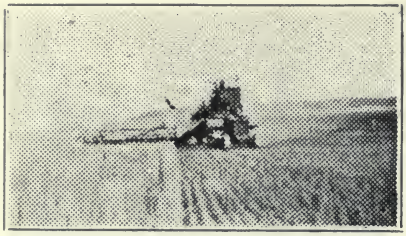
District and County	1925 REVISED			1926 (DEC. EST.)		
	Acreage	Acre Yield (Bu.)	Production (Bu.)	Acreage	Acre Yield (Bu.)	Production (Bu.)
NORTHWESTERN						
Lake	100	5.0	500	200	5.0	1,000
NORTH CENTRAL						
Blaine	6,000	6.0	36,000	6,000	5.5	33,000
Chouteau	100	5.0	500	300	6.0	1,800
Glacier	100	5.0	500	200	5.0	1,000
Hill	2,000	5.4	10,800	2,000	5.0	10,000
Liberty	1,000	6.5	6,500	1,000	5.0	5,000
Pondera	1,000	4.0	4,000	1,000	5.0	5,000
Teton	100	5.0	500	200	5.5	1,100
Toole	200	5.0	1,000	200	6.0	1,200
NORTHEASTERN						
Daniels	25,000	4.5	112,500	19,000	6.5	123,500
Phillips	4,000	4.5	18,000	3,000	6.0	18,000
Roosevelt	15,000	4.0	60,000	11,000	4.0	44,000
Sheridan	40,000	4.0	160,000	26,000	6.5	169,000
Valley	16,000	4.5	72,000	12,000	7.0	84,000
CENTRAL						
Cascade	200	4.0	800	200	4.0	800
Fergus	1,000	2.0	2,000	1,000	4.5	4,500
Golden Valley	200	4.0	800	200	5.0	1,000
Judith Basin	100	5.0	500	100	6.0	600
Meagher	200	3.0	600	200	6.0	1,200
Musselshell	200	4.0	800	200	4.5	900
Wheatland	100	4.0	400	100	5.0	500
EAST CENTRAL						
Dawson	26,000	4.5	117,000	18,000	3.5	63,000
Garfield	16,000	4.7	75,200	10,000	4.5	45,000
McCone	24,000	4.0	96,000	17,000	3.0	51,000
Prairie	10,000	4.0	40,000	7,000	3.0	21,000
Richland	15,000	4.0	60,000	10,000	3.5	35,000
Wibaux	11,000	6.0	66,000	8,000	3.0	24,000
SOUTHWESTERN						
Madison	100	6.0	600	100	4.0	400
SOUTH CENTRAL						
Carbon	100	6.0	600	200	4.0	800
Stillwater	200	5.5	1,100	300	5.0	1,500
Sweet Grass	2,000	5.2	10,400	.....	.....	.....
Yellowstone	1,000	5.0	5,000	1,000	5.0	5,000
SOUTHEASTERN						
Big Horn	7,000	5.0	35,000	4,000	4.0	16,000
Carter	4,000	5.3	21,200	2,000	3.5	7,000
Custer	4,000	3.7	14,800	2,000	3.0	6,000
Fallon	9,000	5.6	50,400	5,000	2.5	12,500
Powder River	1,000	8.5	8,500	1,000	3.5	3,500
Rosebud	1,000	7.5	7,500	1,000	4.0	4,000
Treasure	.....	.....	.....	300	4.0	1,200
STATE TOTAL	244,000	4.5	1,098,000	171,000	4.7	804,000

POTATOES

The state was about to harvest as large a crop in 1926 as in 1925 when freezing temperatures at digging time damaged the bulk of the crop materially. The 1926 production was placed at 2,975,000 bushels compared with 3,780,000 in 1925 and 2,992,000 in 1924. At that estimate the 1926 figure included considerable damaged stock that has since shown up as bad, although it was harvested. Shipments from the 1926 crop to date of January 29th were 432 cars compared with 894 cars to date of January 30th a year ago and the total of 1,508 cars from the 1925 crop. It is not expected that the full season's shipments will show any stronger ratio to last year's total than that shown in the movement from both crops to date.

POTATOES BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED			1926 (DEC. EST.)		
	Acreage	Acre Yield (Bu.)	Production (Bu.)	Acreage	Acre Yield (Bu.)	Production (Bu.)
NORTHWESTERN						
Flathead	2,700	139	375,300	2,900	93	269,700
Lincoln	300	111	33,300	300	100	30,000
Lake	600	155	93,000	600	110	66,000
Sanders	400	109	43,600	500	85	42,500
NORTH CENTRAL						
Blaine	1,000	133	133,000	900	90	81,000
Chouteau	400	105	42,000	400	75	30,000
Glacier	200	85	17,000	200	65	13,500
Hill	700	100	70,000	700	65	45,500
Liberty	200	98	19,600	300	60	18,000
Pondera	700	127	88,900	800	105	84,000
Teton	400	105	42,000	500	90	45,000
Toole	300	102	30,600	300	75	22,500
NORTHEASTERN						
Daniels	400	98	39,200	400	90	36,000
Phillips	400	104	41,600	400	90	36,000
Roosevelt	400	105	42,000	500	90	45,000
Sheridan	800	93	74,400	500	95	47,500
Valley	700	91	63,700	600	90	54,000
WEST CENTRAL						
Deer Lodge	800	90	72,000	700	80	56,000
Granite	500	90	45,000	400	90	36,000
Mineral	200	115	23,000	200	90	18,000
Missoula	700	110	77,000	600	85	27,000
Powell	900	120	108,000	800	95	76,000
Ravalli	2,100	145	304,500	1,700	110	187,000
CENTRAL						
Broadwater	600	108	64,800	600	106	63,600
Cascade	1,100	103	113,300	1,300	80	104,000
Fergus	1,000	64	64,000	1,100	70	77,000
Golden Valley	300	120	36,000	300	85	25,500
Jefferson	700	110	77,000	700	90	63,000
Judith Basin	500	102	51,000	500	71	35,500
Lewis and Clark	1,600	113	180,800	1,500	85	127,500
Meagher	400	90	36,000	400	90	36,000
Musselshell	500	41	20,500	500	50	25,000
Petroleum	100	57	5,700	100	60	6,000
Wheatland	200	70	14,000	300	60	18,000
EAST CENTRAL						
Dawson	700	80	56,000	800	40	32,000
Garfield	500	90	45,000	500	38	19,000
McCone	400	82	32,800	300	35	10,500
Prairie	400	83	29,200	300	42	13,600
Richland	600	89	53,400	700	50	35,000
Wibaux	400	90	36,000	400	40	16,000
SOUTHWESTERN						
Beaverhead	400	150	60,000	400	85	34,000
Madison	1,100	122	134,200	900	120	108,000
Silver Bow	300	130	39,000	300	90	27,000
SOUTH CENTRAL						
Carbon	700	100	70,000	700	110	77,000
Gallatin	1,100	105	115,500	1,200	110	132,000
Park	600	125	75,000	700	125	87,500
Stillwater	700	90	63,000	600	90	54,000
Sweet Grass	300	93	27,900	300	120	36,000
Yellowstone	900	122	109,800	1,100	116	127,600
SOUTHEASTERN						
Big Horn	400	130	52,000	400	100	40,000
Carter	300	90	27,000	300	70	21,000
Custer	700	90	63,000	800	50	40,000
Fallon	400	82	32,800	400	50	20,000
Powder River	400	80	32,000	500	81	40,500
Rosebud	600	96	57,600	600	50	30,000
Treasure	300	90	27,000	300	90	27,000
STATE TOTALS	35,000	108	3,780,000	35,000	85	2,975,000



RYE

Rye acreage increased in 1926 and the average yield per acre was only slightly below that of 1925. Production in 1926 was 1,284,000 bushels, compared with 1,000,000 bushels in 1925 and 1,120,000 bushels in 1924.

RYE BY COUNTIES FOR 1926 AND 1925

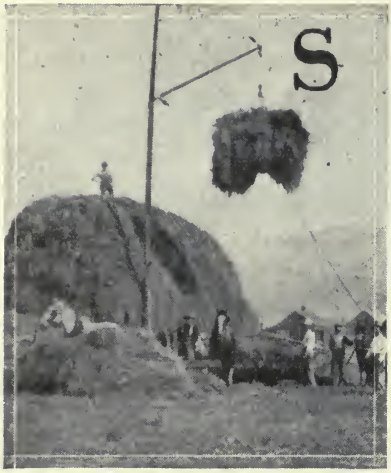
District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	700	20	14,000	800	9	7,200
Lincoln	300	14	4,200	400	8	3,200
Lake	800	15	12,000	900	15	13,500
Sanders	200	9	1,800	300	8	2,400
NORTH CENTRAL						
Blaine	13,000	13	169,000	16,000	12	192,000
Chouteau	3,000	10	30,000	5,000	11	55,000
Glacier	1,000	15	15,000	1,000	10	10,000
Hill	3,000	9	27,000	4,000	9	36,000
Pondera	200	15	3,000	300	17	5,100
Liberty	200	15	3,000	200	7	1,400
Teton	1,000	9	9,000	2,000	16	32,000
Toole	1,000	10	10,000	1,000	8	8,000
NORTHEASTERN						
Daniels	3,000	12	36,000	3,000	18	54,000
Phillips	3,000	11	33,000	5,000	10	50,000
Roosevelt	5,000	12	60,000	7,000	14	98,000
Sheridan	5,000	11	55,000	7,000	14	98,000
Valley	2,000	14	28,000	2,000	12.5	25,000
WEST CENTRAL						
Deer Lodge	100	10	1,000	200	16	3,200
Granite	200	10	2,000	100	19	1,900
Missoula	2,000	15	30,000	2,000	20	40,000
Powell	200	15	3,000	300	24	7,200
Ravalli	200	20	4,000	200	22	4,400
CENTRAL						
Broadwater	400	17.5	7,000	600	21	12,600
Cascade	2,000	15	30,000	3,000	13	39,000
Fergus	2,000	13	26,000	4,000	12	48,000
Golden Valley	.....	....	.....	.....	....	.....
Jefferson	2,000	10	20,000	3,000	14	42,000
Judith Basin	1,000	13	13,000	2,000	14	28,000
Lewis and Clark	2,000	18	36,000	2,500	9	22,500
Meagher	300	20	6,000	300	20	6,000
Musselshell	1,500	10	15,000	2,000	10	20,000
Wheatland	.....	....	.....	600	9	5,400
EAST CENTRAL						
Dawson	1,000	10	10,000	1,000	6	6,000
Garfield	1,000	11	11,000	2,000	7	14,000
McCone	1,000	10	10,000	1,000	8	8,000
Prairie	300	10	3,000	400	6	2,400
Richland	2,000	10	20,000	3,000	9	27,000
Wibaux	400	15	6,000	500	6	3,000
SOUTHWESTERN						
Beaverhead	200	15	3,000	500	15	7,500
Madison	300	25	7,500	1,000	22	22,000
Silver Bow	400	10	4,000	1,000	15	15,000
SOUTH CENTRAL						
Carbon	200	15	3,000	500	18	9,000
Gallatin	2,000	15	30,000	3,000	22	66,000
Park	200	20	4,000	300	15	4,500
Stillwater	1,000	12	12,000	1,000	11	11,000
Sweet Grass	1,000	17	17,000	1,000	15	15,000
Yellowstone	1,000	11	11,000	2,000	9	18,000
SOUTHEASTERN						
Big Horn	1,000	10	10,000	1,000	10	10,000
Carter	2,000	14	28,000	2,000	7	14,000
Custer	500	11	5,500	600	6	3,600
Fallon	4,000	14	44,000	4,000	5	20,000
Powder River	200	15	3,000	500	10	5,000
Rosebud	3,000	15	45,000	3,000	8	24,000
Treasure	1,000	10	10,000	1,000	8	8,000
STATE TOTALS	80,000	12.5	1,000,000	107,000	12.0	1,284,000

OATS

Oats production in 1926 ran well above that of 1925 for the state as a whole which produced nearly three million bushels more than in 1926. Western and eastern Montana averaged below 1925 yields but central Montana exceeded generally the 1925 averages.

OATS BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	9,000	29	261,000	10,000	26	260,000
Lincoln	2,000	28	56,000	2,000	24	48,000
Lake	7,000	34	238,000	7,000	27	189,000
Sanders	2,000	33	66,000	2,000	27	54,000
NORTH CENTRAL						
Blaine	15,000	23	345,000	16,000	23	368,000
Chouteau	14,000	20	280,000	13,000	23	299,000
Glacier	4,000	38	152,000	4,000	25	100,000
Hill	18,000	17	306,000	19,000	22	418,000
Liberty	3,000	20	60,000	3,000	21	63,000
Pondera	11,000	31	341,000	11,000	30	330,000
Teton	11,000	25	275,000	12,000	42	504,000
Toole	6,000	16	96,000	6,000	19	114,000
NORTHEASTERN						
Daniels	29,000	20	580,000	31,000	29	899,000
Phillips	19,000	18	342,000	22,000	28	616,000
Roosevelt	27,000	15	405,000	28,000	25	700,000
Sheridan	40,000	12	480,000	41,000	27	1,107,000
Valley	33,000	19	627,000	38,000	27	1,026,000
WEST CENTRAL						
Deer Lodge	2,000	40	80,000	2,000	28	56,000
Granite	2,000	48	96,000	2,000	28	56,000
Mineral	2,000	37	74,000	2,000	27	54,000
Missoula	6,000	42	252,000	6,000	42	252,000
Powell	5,000	28	140,000	5,000	33	165,000
Ravalli	6,000	48	288,000	6,000	36	216,000
CENTRAL						
Broadwater	7,000	47	329,000	7,000	39	273,000
Cascade	11,000	24	264,000	12,000	36	432,000
Fergus	27,000	20	540,000	27,000	27	729,000
Golden Valley	8,000	16	128,000	8,000	20	160,000
Jefferson	2,000	27	54,000	2,000	32	64,000
Judith Basin	9,000	21	189,000	9,000	36	324,000
Lewis and Clark	5,000	33	165,000	5,000	39	195,000
Meagher	3,000	16	48,000	3,000	38	114,000
Musselshell	9,000	17	153,000	9,000	13	117,000
Wheatland	7,000	20	140,000	7,000	28	196,000
EAST CENTRAL						
Dawson	25,000	16	400,000	25,000	16	400,000
Garfield	13,000	15	195,000	13,000	19	247,000
McCone	19,000	16	304,000	21,000	12	252,000
Prairie	10,000	21	210,000	11,000	13	143,000
Richland	25,000	20	500,000	25,000	16	400,000
Wibaux	14,000	18	252,000	14,000	12	168,000
SOUTHWESTERN						
Beaverhead	7,000	53	371,000	7,000	32	224,000
Madison	7,000	51	357,000	7,000	38	266,000
Silver Bow	2,000	45	90,000	2,000	35	70,000
SOUTH CENTRAL						
Carbon	9,000	41	369,000	11,000	48	528,000
Gallatin	13,000	38	494,000	14,000	38	532,000
Park	6,000	41	246,000	7,000	40	280,000
Stillwater	11,000	23	253,000	12,000	24	288,000
Sweet Grass	7,000	26	182,000	8,000	45	360,000
Yellowstone	15,000	21	315,000	16,000	27	432,000
SOUTHEASTERN						
Big Horn	9,000	31	279,000	10,000	31	310,000
Carter	9,000	16	144,000	10,000	28	280,000
Custer	8,000	16	128,000	9,000	18	162,000
Fallon	13,000	20	260,000	14,000	18	252,000
Powder River	7,000	17	119,000	7,000	25	175,000
Rosebud	12,000	17	204,000	11,000	13	143,000
Treasure	3,000	30	90,000	4,000	25	100,000
STATE TOTALS	605,000	22.5	13,612,000	635,000	26.0	16,510,000



HAY

SOME decrease in production including both tame hay and wild hay occurred in 1926 as a result of dry weather. A total of 2,484,000 tons of both kinds was cut compared with 2,631,000 tons in 1925 and 2,708,000 tons in 1924. Reduction of tonnage cut in 1926 was slightly greater in case of wild hay than with tame hay.

The tendency of recent years has been to accumulate some surplus of hay to offset fluctuating seasonal production and thus avoid such a situation as occurred in 1919 when an unusually dry season followed by a severe winter brought about serious shortages.

TAME HAY BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Tons)	1925 REVISED Production (Tons)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Tons)	1926 (DEC. EST.) Production (Tons)
NORTHWESTERN						
Flathead	25,000	1.60	40,000	24,000	1.35	32,400
Lincoln	12,000	1.40	16,800	12,000	1.45	17,400
Lake	23,000	1.60	36,800	24,000	1.70	40,800
Sanders	15,000	1.70	25,500	15,000	1.70	25,500
NORTH CENTRAL						
Blaine	23,000	2.20	50,600	24,000	2.10	50,400
Chouteau	21,000	2.30	48,300	21,000	1.85	38,900
Glacier	2,000	1.10	2,200	2,000	1.25	2,500
Hill	12,000	1.60	19,200	12,000	1.50	18,000
Liberty	5,000	2.22	11,100	6,000	1.20	7,200
Pondera	17,000	1.90	32,300	16,000	1.70	27,200
Teton	16,000	1.65	26,400	16,000	2.10	33,600
Toole	5,000	2.00	10,000	5,000	1.50	7,500
NORTHEASTERN						
Daniels	6,000	1.50	9,000	6,000	1.40	8,400
Phillips	15,000	1.00	15,000	15,000	1.00	15,000
Roosevelt	12,000	2.00	24,000	12,000	1.20	14,400
Sheridan	15,000	1.10	16,500	15,000	1.10	16,500
Valley	20,000	1.50	30,000	20,000	1.20	24,000
WEST CENTRAL						
Deer Lodge	11,000	1.00	14,300	11,000	1.30	14,300
Granite	24,000	1.55	37,200	23,000	1.40	32,200
Mineral	3,000	1.70	5,100	2,000	1.40	2,800
Missoula	20,000	2.51	50,200	20,000	2.30	46,000
Powell	39,000	1.30	50,700	39,000	1.30	50,700
Ravalli	36,000	2.20	79,200	38,000	2.20	83,600
CENTRAL						
Broadwater	18,000	1.60	28,800	18,000	1.90	34,200
Cascade	53,000	1.60	84,800	52,000	1.65	85,800
Fergus	69,000	1.20	82,800	68,000	1.30	88,400
Golden Valley	10,000	1.60	16,000	9,000	1.80	16,200
Jefferson	13,000	1.90	24,700	13,000	2.05	26,700
Judith Basin	32,000	1.30	41,600	33,000	1.40	46,200
Lewis and Clark	31,000	1.80	55,800	31,000	1.40	43,400
Meagher	28,000	1.15	32,200	27,000	1.40	37,800
Musselshell	15,000	1.10	16,500	16,000	1.10	17,600
Wheatland	18,000	1.25	22,500	19,000	1.25	23,800
EAST CENTRAL						
Dawson	15,000	1.00	15,000	16,000	.70	11,200
Garfield	23,000	1.20	27,600	24,000	1.10	26,400
McCone	19,000	1.70	32,600	18,000	.85	15,300
Prairie	5,000	.92	4,600	5,000	.70	3,500
Richland	26,000	.95	24,700	27,000	.90	24,300
Wibaux	9,000	1.00	99,000	10,000	.80	8,000
SOUTHWESTERN						
Beaverhead	45,000	2.20	99,000	43,000	1.80	77,400
Madison	52,000	2.20	114,400	51,000	1.90	96,900
Silver Bow	5,000	1.30	9,000	5,000	2.00	10,000
SOUTH CENTRAL						
Carbon	43,000	2.00	86,000	43,000	2.10	90,300
Gallatin	48,000	2.00	96,000	47,000	2.05	96,400
Park	44,000	2.50	110,000	44,000	2.10	92,400

(Tame Hay—Continued.)

Stillwater	29,000	1.00	29,000	30,000	1.60	48,000
Sweet Grass	35,000	1.80	63,000	37,000	2.00	74,000
Yellowstone	38,000	2.50	95,000	39,000	1.95	76,100
SOUTHEASTERN						
Big Horn	28,000	1.50	42,000	29,000	1.50	43,500
Carter	15,000	1.40	21,000	16,000	1.50	24,000
Custer	16,000	1.00	16,000	17,000	1.20	20,400
Fallon	9,000	1.00	9,000	9,000	1.40	12,600
Powder River	29,000	1.00	29,000	29,000	1.50	43,500
Rosebud	24,000	1.50	36,000	24,000	1.10	26,400
Treasure	11,000	2.00	22,000	12,000	1.50	18,000
STATE TOTALS	1,232,000	1.66	2,046,000	1,239,000	1.59	1,968,000

WILD HAY BY COUNTIES FOR 1926 AND 1925

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Tons)	1925 REVISED Production (Tons)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Tons)	1926 (DEC. EST.) Production (Tons)
NORTHWESTERN						
Flathead	5,000	1.00	5,000	4,000	.70	2,800
Lincoln	1,000	1.00	1,000	1,000	.60	600
Lake	1,000	1.00	1,000	2,000	.60	1,200
Sanders	1,000	1.00	1,000	1,000	.90	900
NORTH CENTRAL						
Blaine	15,000	.80	12,000	16,000	.80	12,800
Chouteau	7,000	.90	6,300	7,000	.90	6,300
Glacier	21,000	.90	18,900	22,000	.51	11,220
Hill	3,000	.80	2,400	2,000	.40	800
Liberty	4,000	.50	2,000	3,000	.60	1,800
Pondera	5,000	.50	2,500	7,000	.50	3,500
Teton	25,000	.50	12,500	27,000	1.00	27,000
Toole	4,000	.60	2,400	4,000	.60	2,400
NORTHEASTERN						
Daniels	4,000	.90	3,600	5,000	.50	2,500
Phillips	24,000	.80	19,200	25,000	.50	12,500
Roosevelt	23,000	.70	16,100	24,000	.70	16,800
Sheridan	13,000	.80	10,400	14,000	.60	8,400
Valley	18,000	1.00	18,000	19,000	.75	14,250
WEST CENTRAL						
Deer Lodge	6,000	1.00	6,000	5,000	.80	4,000
Granite	3,000	1.00	3,000	3,000	.90	2,700
Mineral	1,000	1.40	1,400	1,000	.90	900
Missoula	2,000	1.50	3,000	3,000	.80	2,400
Powell	23,000	1.00	23,000	24,000	.95	22,800
Ravalli	2,000	.80	1,600	2,000	1.00	2,000
CENTRAL						
Broadwater	6,000	1.40	8,400	7,000	1.50	10,500
Cascade	10,000	1.50	15,000	11,000	1.25	13,750
Fergus	9,000	.90	8,100	10,000	.65	6,500
Golden Valley	2,000	1.00	2,000	3,000	.60	1,800
Jefferson	10,000	1.00	10,000	11,000	1.25	11,550
Judith Basin	11,000	.60	6,600	12,000	.80	9,600
Lewis and Clark	20,000	.80	16,000	21,000	.65	13,650
Meagher	15,000	1.20	18,000	16,000	1.00	16,000
Musselshell	3,000	.75	2,400	2,000	.50	1,000
Wheatland	6,000	.70	4,200	5,000	.54	2,600
EAST CENTRAL						
Dawson	16,000	.70	11,200	14,000	.65	9,100
Garfield	4,000	.60	2,400	4,000	.35	1,400
McCone	9,000	.40	3,600	8,000	.40	3,200
Prairie	6,000	.50	3,000	5,000	.35	1,750
Richland	9,000	.60	5,400	8,000	.30	2,400
Wibaux	2,000	.60	1,200	1,000	.35	3,500
SOUTHWESTERN						
Beaverhead	170,000	1.10	187,000	158,000	.90	142,200
Madison	17,000	1.30	22,100	21,000	1.00	21,000
Silver Bow	4,000	1.10	4,000	5,000	.80	4,000
SOUTH CENTRAL						
Carbon	1,000	1.10	1,100	1,000	1.00	1,000
Gallatin	1,000	1.00	1,000	1,000	1.00	1,000
Park	3,000	1.00	3,000	3,000	1.10	3,300
Stillwater	3,000	1.00	3,000	3,000	.95	2,850
Sweet Grass	5,000	.90	4,500	5,000	.90	4,500
Yellowstone	2,000	.90	1,800	2,000	1.00	2,000
SOUTHEASTERN						
Big Horn	11,000	.70	7,700	12,000	.90	10,800
Carter	34,000	.60	20,400	28,000	.50	14,000
Custer	11,000	.50	5,500	10,000	1.00	10,000
Fallon	10,000	.83	8,300	9,000	.82	7,380
Powder River	12,000	1.00	12,000	12,000	1.00	12,000
Rosebud	16,000	.80	12,800	15,000	.70	10,500
Treasure	1,000	1.00	11,000	1,000	.60	600
STATE TOTALS	650,000	.90	585,000	645,000	.80	516,000

APPLES

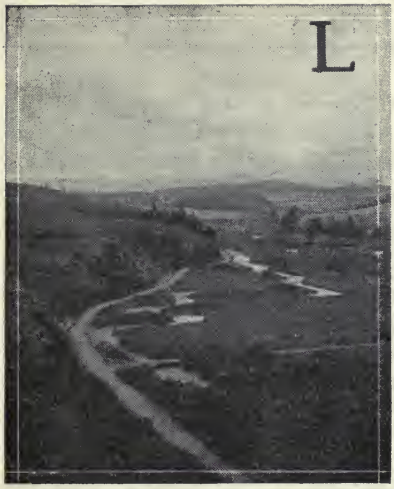
THE September freeze greatly damaged one of the best apple crops in western Montana that the state has had in the past three years. About half of the crop was picked at the time of the freeze and the unpicked portion was practically an entire loss. As placed by the December estimate, 1926 production of 325,000 bushels will probably need some upward revision next December, as indicated by the season's shipments to date of January 29th of 338 cars. The very favorable crop of 1926, had it matured without damage, would have been larger than at first supposed by growers.

OTHER FRUITS AND BERRIES

There is still a small production of pears and plums in western Montana, although much damage was done to orchards by the December freeze two years ago that has not yet been wholly remedied by new plantings. Sweet cherries were becoming somewhat popular before the freeze damage but since that time the principal increase in small fruits has been with the sour canning cherries. A considerable tonnage of sour cherries was canned in 1926 in the Bitter Root and the experience of growers was generally favorable. Some new plantings of sour cherries has been reported.

Strawberry production has shown some tendency to increase in western Montana as a result of recent favorable seasons.

WESTERN MONTANA ORCHARD



SEED AND CANNING PEAS

LOWER prices for both seed and canning peas in 1926 have tended somewhat to curtail production compared with 1925. In case of seed peas production fell off to 520,000 bushels in 1926 compared with 560,000 in 1925, while in case of canned peas, the 1926 pack was 316,000 cases, compared with 332,000 cases in 1925 with one more factory operating in 1926 than in the preceding year.

TOTAL VALUE

Total value to Montana of the pea growing industry in 1926 was $1,862,000. Of this total $1,040,000 is the value of the production of seed peas largely grown under contract for canners and seed houses, while green peas canned at three Montana factories were worth $822,000.

INDUSTRY GROWING

The pea industry in Montana has had a remarkable growth during the past five years. In 1922 the seed pea crop was worth about $200,000 and by 1924 its value was more than four times this amount; reaching $945,000 that year; $1,176,000 in 1925 and dropping off slightly to $1,040,000 in 1926.

The canning pea industry has likewise developed to a place among Montana's important special crops. A new factory at Red Lodge in 1926 has added to the potential production of canned peas in the state.

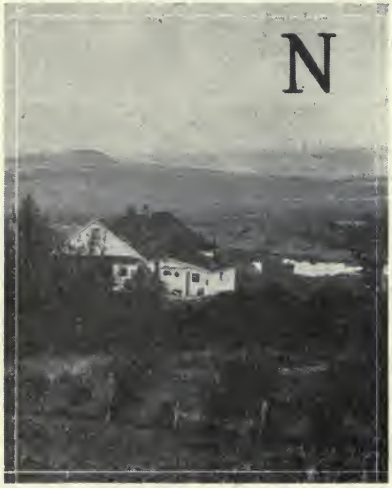
OUTLOOK FOR INDUSTRY

Quality and favorable yields are factors in Montana seed pea production that enable the state to compete with the older seed production areas. In manufacture of canned peas, Montana is somewhat handicapped by geographic factors, such as lack of close markets and freight rates. Both ends of the industry in Montana are dependent upon the general condition of the industry throughout the United States. Some adjustment nationally is to be expected in both seed production and canning as a result of declining prices during the past three years.

SEED PEAS FOR 1925 AND 1926 BY COUNTIES

District and County	1925 REVISED Acreage	1925 REVISED Acre Yield (Bu.)	1925 REVISED Production (Bu.)	1926 (DEC. EST.) Acreage	1926 (DEC. EST.) Acre Yield (Bu.)	1926 (DEC. EST.) Production (Bu.)
NORTHWESTERN						
Flathead	150	21	3,150	200	20	4,000
Lake	2,400	11	26,400	2,100	21	44,100
WEST CENTRAL						
Granite	100	16	1,600	150	20	3,000
Missoula	550	18	9,900	850	19	17,000
Powell	200	18	3,600	150	20	3,000
Ravalli	1,250	17	21,250	1,300	22	28,600
CENTRAL						
Broadwater	200	15	3,000	150	21	3,150
Cascade	150	12	1,650	120	21	2,520
Fergus	260	10	2,600	150	20	3,000
Jefferson	600	15	9,000	500	20	10,000
Lewis and Clark	350	15	5,250	630	21	13,230
Wheatland	200	17	3,400	200	21	4,200
EAST CENTRAL						
Richland	250	16	4,000	300	21	6,300
SOUTHWESTERN						
Beaverhead	1,200	22	26,400	1,100	22	24,200
Madison	400	25	10,000	400	20	8,000
SOUTH CENTRAL						
Carbon	4,800	26	124,000	5,000	27	135,000
Gallatin	13,200	20	264,000	10,900	16	174,400
Park	1,300	24	31,200	1,500	20	30,000
Stillwater	400	20	8,800	300	21	6,300
STATE TOTALS	28,000	20.0	560,000	26,000	20.0	520,000

ALFALFA SEED



NO enumeration of alfalfa seed production in the state has been made since the Federal Census of 1919 in which year 23,328 bushels were produced. Production since then has expanded rapidly and the crop has become an important cash crop in southeastern Montana. In this section of the state Garfield, Big Horn, Rosebud, Powder River and Treasure counties have become important producers, although commercial production is also now found in other sections of the state, including counties in the Milk River valley.

Considerable of the present production is certified seed, there being reported for 1926 nearly 12,000 acres, or half of the total in registered Grimm and Cossack. Grimm, however, constitutes the bulk of this acreage with 11,015 acres reported in 1926 against 993 acres of Cossack.

Estimates of production during the past three years have been as follows:

Year	Acreage	Acre Yield	Production	Production
		(Bu.)	(Bu.)	(Pounds)
1924	19,000	2.5	47,000	2,820,000
1925	28,000	2.8	78,000	4,680,000
1926	23,000	2.7	62,000	3,720,000

1925-1926 SHIPMENTS—1926-1927 SUPPLY

From the 1925 crop total railroad shipments from October 1, 1925 to September 30, 1926, show a total of 3,665,749 pounds of alfalfa seed shipped from Montana, which with an additional allowance of 100,000 bushels for seed would indicate a carry-over from the 1925 crop of about 900,000 pounds. The total supply for 1926-1927 season, therefore, including carry-over and excluding seed needs is very nearly as large as the preceding season.

STATE DEPARTMENT ORIGIN RECORDS

The State Department of Agriculture "tags" and seals cars of Montana alfalfa seed certifying origin of the seed. In 1925 out of a total of 3,665,749 pounds shipments as reported by railroads, the State Department sealed 1,800,000 pounds and rejected about 120,000 pounds. During the 1926-1927 season to date (February) a total of 2,800,000 pounds have been sealed with about 430,000 pounds expected to go in the near future. However, it is believed that a much larger percentage of the total shipments will be handled through department sealing this season compared with last and that total shipments for the entire season will approximate those of the 1925-1926 season.

BEANS

Beans are grown in Montana as a cash crop and production has increased rapidly since 1920. In 1923 the industry was credited with 23,000 acres on which an average yield per acre of 11.5 bushels gave a total production of 264,000 bushels. The farm price of beans in 1923 was $3.70 per bushel giving an acre value of $42.55 and a total farm value of $977,000. The acreage increased in 1924 to 25,000 with an average yield of 12 bushels and total production of 300,000 bushels. Prices were not so good in 1924 as in 1923, the unit value of $3.30 per bushel giving a total farm value for the crop of $990,000 and an acre value of $39.60. In 1925 the bean acreage was further increased 12,000 acres to 37,000 while the average yield per acre also increased a half bushel over 1924 and at 12.5 bushels gave a state production of 462,000 bushels, on which the average farm price was $3.05 per bushel; the total farm value, $1,411,000, and the acre value, $38.13. A further acreage increase of 4,000 acres in 1926 was more than offset by a lower acre yield of 10.0 bushels. Production was 410,000 bushels. December 1st price of $2.80 per bushel placed total farm value at $1,148,000 and average acre value at $28.00.

BEAN VARIETIES

The bulk of Montana's commercial production of beans is devoted to the Great Northern variety, a dry white bean of excellent eating quality, developed from a native bean grown by the Indians of the Upper Missouri valleys. The market for the Great Northern bean has been a shade better than for other varieties of dry beans in the past three years of heavy national bean production. Idaho is the principal competitor of Montana in the production of the Great Northern beans.

Other beans grown in Montana include a small amount of chili and colored beans, in dried beans; and a small, but growing, production of green beans for canning.

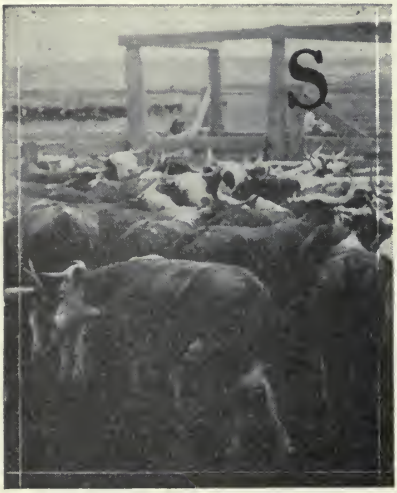
September weather at bean harvest has been unfavorable during the past two years, 1925 and 1926, resulting in more than usual loss by discoloration, splits and frost damage. With average harvest conditions, however, the Great Northern bean shows a high quality and small dockage.

In 1925 there were packed in the state 20,095 cases of green beans worth about $50,238. The 1926 season saw an increase in the pack of green beans with a total of 22,502 cases worth about $56,300.

BEANS BY COUNTIES FOR 1925 AND 1926

District and County	1925 REVISED			1926 (DEC. EST.)		
	Acreage	Acre Yield (Bu.)	Production (Bu.)	Acreage	Acre Yield (Bu.)	Production (Bu.)
NORTHWESTERN						
Lake	100	10	1,000	100	9	900
NORTH CENTRAL						
Blaine	700	14	9,800	800	8	6,400
Hill	300	12	3,600	300	10	3,000
NORTHEASTERN						
Phillips	700	5	3,500	900	5	4,500
Roosevelt	100	8	800	150	8	1,200
Sheridan	100	5	500	150	8	1,200
Valley	500	9	4,500	600	6	3,600
CENTRAL						
Cascade	400	10	4,000	500	12	6,000
Fergus	200	12	2,400	300	12	3,600
Golden Valley	100	9	900	200	8	1,600
Musselshell	200	10	2,000	300	6	1,800
EAST CENTRAL						
Dawson	500	12	6,000	500	6	3,000
Prairie	1,200	8	9,600	1,500	7	10,500
Richland	1,500	14	6,000	2,000	9	18,000
SOUTH CENTRAL						
Carbon	3,000	14	42,000	3,500	13	45,500
Stillwater	3,000	14	42,000	4,000	15	6,000
Yellowstone	16,000	13.5	216,000	15,000	12	180,000
SOUTHEASTERN						
Big Horn	4,000	14	56,000	5,000	13	65,000
Carter	200	10	2,000	300	10	3,000
Custer	200	8	1,600	300	9	2,700
Powder River	700	10	7,000	800	10	8,000
Rosebud	3,000	12.5	37,500	3,500	9	31,500
Treasure	300	11	3,300	300	10	3,000
STATE TOTALS	37,000	12.5	462,000	41,000	10	410,000

MONTANA AND THE SUGAR BEET INDUSTRY



SUGAR Beets constitute one of the important cash crops grown in Montana, the industry having expanded to approximately three times the reported acreage shown by the Federal Census of 1910. In 1926 the acreage devoted to sugar beets was estimated to be 30 000, giving a production of 348 000 tons, compared with 1925 acreage of 30,000 and a production of 315,000 tons, and 1924 acreage of 31,000 acres and a production of 326,000 tons. The expansion in sugar beet acreage has brought two new sugar refineries into the state, making three in all. The pioneer refinery is located at Billings and operated by the Great Western Sugar Company; one of the new sugar factories is located at Chinook, operated by the Utah-Idaho Sugar Company, and the other is at Sidney, operated by the Holly Sugar Company.

Hand in hand with the development of sugar beet raising in Montana has gone the development of winter feeding and fattening of cattle, sheep and hogs in the factory areas of the state.

Upwards of 100,000 head of sheep and lambs have been fattened in these areas on an average for the past several years and an average of about 30,000 head of cattle have been fed for market with beet pulp as the basis of the fattening ration.

The market value of livestock fattened as in these areas will annually exceed three millions of dollars, or the value of the beet crop itself.

LIVESTOCK SECTION

IMPORTANCE OF LIVESTOCK IN MONTANA

The importance of livestock in Montana is indicated by its annual contribution to the total farm income of the state. In 1926, out of a total of $129,856,000, it is estimated that $71,490,000 will come from livestock sources. Beef cattle alone will contribute about thirty-one million dollars to the total for 1926, second only to wheat whose cash contribution is placed at forty-one million dollars. Sheep with combined returns from lambs and wool, will return about twenty-two million dollars with the dairy industry contributing about ten million dollars.

It is significant that three of the four largest sources of agricultural income in Montana are livestock sources. There has only been one year, that of 1924, when total income from crops exceeded that from livestock and its products.

BEEF CATTLE IN MONTANA

Since 1870 the trend of beef production in Montana is indicated by the trends in numbers of cattle, other than milk cows, as estimated by the U. S. Division of Crops and Livestock Estimates as of January 1st each year since the year 1870. This data is summarized as follows:

January 1st	Number on Farms (Head)
1870	24,000
1880	162,000
1883-1889 Seven Year Average	773,000
1890-1899 Ten Year Average	1,048,000
1900-1909 Ten Year Average	970,000
1910-1919 Ten Year Average	971,000
1920-1924 Five Year Average	1,148,000

IN THE UNITED STATES

The general trend of beef cattle numbers in the United States has been downward since the peak, of nearly fifty million head, that was reached between 1890 and 1900. The immediate downward trend that followed this peak brought numbers to the thirty million mark between 1900 and 1910 and below the thirty million mark by the beginning of the world war. During the war numbers increased reaching the forty-three million mark by 1920 but during the post-war period there has again been a pronounced downward trend that has averaged a yearly decrease of about two million head since 1921. Some idea of this trend may be gained from the following table:

NUMBER OF CATTLE OTHER THAN MILK COWS AS OF DATE JANUARY 1st IN YEARS NAMED

	United States	Montana
1920	42,926,000	1,192,000
1925	35,320,000	1,112,000
1926	33,091,000	1,052,000
1927	31,320,000	967,000

From this table it would appear that the same general factors operating to shrink inventories of the beef cattle industry in the United States at large have exerted a similar influence in Montana. This conclusion is generally ac-

MONTANA LIVESTOCK
Numbers of Livestock.
(1870 to 1927)

Year	Milk Cows	Other Cattle	All Cattle	Horses	Sheep	Swine	Mules
1870	12,400*	24,000*	36,400	5,300*	2,000*	2,600*	500*
1880	11,500*	162,000*	173,500	36,000*	185,000*	10,500*	900*
1883	14,000	590,000	604,000	39,900	405,000	17,000	900
1884	14,200	672,600	686,800	45,900	466,000	17,500	1,000
1885	23,000	615,000	638,000	105,000	625,000	19,000	2,800
1886	25,300	725,700	751,000	120,700	719,000	19,000	8,900
1887	29,000	812,800	841,800	129,000	755,000	20,000	9,200
1888	31,000	934,500	965,500	187,000	1,265,000	22,000	5,500
1889	31,400	962,500	993,900	200,000	1,391,000	23,000	5,300
1890	33,000	981,800	1,014,800	216,000	1,990,000	29,000	2,400
1891	34,000	932,700	966,700	152,000	2,089,000	35,000	1,800
1892	35,700	1,026,000	1,061,700	197,000	2,089,000	35,000	1,200
1893	36,400	1,036,000	1,072,400	207,000	2,528,000	39,000	1,200
1894	36,400	1,057,000	1,093,400	197,000	2,781,000	39,000	900
1895	39,000	1,078,000	1,117,000	198,000	2,809,000	46,000	900
1896	42,000	1,154,000	1,196,000	183,000	3,061,000	52,000	900
1897	43,000	1,177,000	1,220,000	175,000	3,123,000	51,000	900
1898	42,700	1,082,000	1,510,000	171,800	3,248,000	47,000	900
1899	44,000	953,000	997,000	165,000	3,378,000	42,300	1,000
1900	48,500*	926,500*	975,000	347,000*	6,170,000*	50,000*	2,800*
1901	49,400	960,200	1,009,600	302,000	6,417,000	47,000	3,400
1902	50,000	998,000	1,048,000	275,000	5,081,000	49,000	3,400
1903	52,400	1,048,600	1,101,000	246,600	5,120,000	51,700	3,400
1904	53,900	1,059,000	1,112,900	244,000	5,270,000	54,800	3,400
1905	55,000	1,048,000	1,103,000	236,800	5,639,000	57,600	3,400
1906	61,600	965,000	1,026,600	239,000	5,752,000	59,900	3,600
1907	66,000	916,300	982,300	292,000	5,637,000	62,900	4,000
1908	69,000	879,000	948,000	292,000	5,524,000	66,000	4,000
1909	75,000	905,000	980,000	304,000	5,634,000	68,000	5,000
1910	80,000	842,000	922,000	319,000	5,747,000	75,000	5,000
1911	80,000†	818,000†	898,000	344,000	5,230,000†	124,000	4,500†
1912	91,000	732,000	823,000	350,000†	4,926,000†	145,000†	5,000†
1913	95,000	750,000†	845,000	385,000†	4,675,000†	168,000†	5,500†
1914	104,000	826,000†	930,000	440,000†	3,850,000†	187,000†	6,000†
1915	114,000	836,000†	950,000	485,000†	3,340,000†	245,000†	6,500†
1916	125,000†	1,035,000†	1,170,000	520,000†	3,020,000†	270,000†	7,000†
1917	140,000†	1,114,000†	1,254,000	580,000†	2,670,000†	260,000†	7,500†
1918	150,000†	1,310,000†	1,460,000	640,000†	2,380,000†	202,000†	8,500†
1919	163,000†	1,447,000†	1,610,000	720,000†	2,530,000†	180,000†	9,000†
1920	178,000	1,192,000	1,370,000	569,000	2,450,000	167,000	9,000
1921	181,000	1,088,000	1,269,000	669,000	2,328,000	160,000	9,000
1922	185,000	1,195,000	1,380,000	650,000	2,561,000	180,000	10,000
1923	192,000	1,168,000	1,360,000	643,000	2,408,000	225,000	10,000
1924	209,000	1,151,000	1,360,000	611,000	2,480,000	292,000	11,000
1925	222,000	1,118,000	1,340,000	596,000	2,579,000	280,000	11,000
1926	228,000	1,052,000	1,280,000	576,000	2,880,000	250,000	11,000
1927	223,000	967,000	1,190,000	564,000	2,736,000	240,000	11,000

NOTE: Many earlier estimates were made to exact figures. These have been rounded to even thousands or hundreds in above table.
*Based upon Census Data.
†Tentative Revision. All others are United States Department of Agriculture Estimates.

cepted in the contention that the chief difficulty of the beef cattle man during the post-war period has been the low purchasing power of the beef dollar, which is to say beef prices have been too low compared with production costs. In this difficulty Montana beef producers have been almost equally handicapped with all other beef producers of the nation.

PURCHASING POWER OF BEEF IMPROVING

With the contraction of inventories during the past six years, there has been a steady improvement in the purchasing power of cattle and calves since the low point of 1921, although the present purchasing power of beef is still below that of 1918 and 1919, and it has not recovered proportionally the same ground as has been regained by sheep, lambs and hogs.

PURCHASING POWER OF BEEF COMPARED WITH OTHER MEAT ANIMALS

Year	Cattle	Calves	Sheep	Lambs	Hogs
1918	97	94	128	126	117
1919	94	95	106	111	113
1920	68	73	77	84	75
1921	63	70	60	73	65
1922	62	68	78	98	69
1923	63	69	85	104	58
1924	67	74	92	112	64
1925	73	80	103	127	93
1926	77	88	101	122	101

CHANGES IN MARKETING AGE OF CATTLE

Partly as a result of the disproportionately high costs of beef production in contrast with low beef prices and partly as a result of preference in market demand for younger beef, Montana cattlemen have been lowering the age of their marketings.

SHIFTS IN AGE IN MONTANA

As on January 1st	Steers 1 year and under 2 years. Per cent of Total %	Steers over 2 years. Per cent of Total %
1900 Census	36	64
1910 Census	....	....
1920 Census	52	48
1926 Sample Survey	61	39

SHIFTS IN SEX IN MONTANA

As on January 1st	Cows (000 head omitted)	Steers (000 head omitted)	Number Steers Per 100 Cows
1900 Census	311	312	100
1910 Census	373	261	70
1920 Census	384	227	59
1925 Census	590	194	33

AGE AND SEX GROUPS IN THE UNITED STATES

Results of the 1925 census of agriculture are not yet available for a comparison to date of age and sex groups of beef cattle for the United States.

However, the trend as shown in the following table between 1900 and 1920 shows a decrease in steer classification, especially in the classification of two years and over.

CHANGES IN AGE AND SEX GROUPS BEEF CATTLE, UNITED STATES

Class and Sex	Percentage of Total 1900	Percentage of Total 1910	Increase %	Decrease %
Calves under 1 year	22.7	24.6	4.2	.....
Heifers 1 and under 2	9.3	11.2	16.3	.....
Cows 2 and over	29.1	35.5	17.6	.....
Bulls 1 and over	1.7	2.0	16.8	.....
Steers 1 and under 2	17.3	13.2	.....	26.7
Steers 2 and over	19.9	13.5	.....	34.6
Total Beef Cattle	100.0	100.0		3.6

TRENDS OF ALL CATTLE

The trend of numbers of beef cattle alone will not tell the whole story of changes in the potential production of beef.

All dairy or milk cows are ultimately slaughtered as beef and in the end compete with the meat of the beef animal. The trend of milk cow numbers and dairy production is, therefore, of interest to the beef cattle producer.

BRIEF SKETCH OF SEVENTY-FIVE YEARS OF DAIRY DEVELOPMENT

In 1850 there were about 6,400,000 dairy, or milk cows and in 1920 there were 23,722,000 milk cows in the United States. Total population was 23,200,000 in 1850 and 105,700,000 in 1920. In 1850 there were 275 milk cows per 1,000 population and in 1920 only 215 per 1,000 persons.

From these figures it is apparent that the dairy industry in the United States has not expanded as rapidly as has population. Furthermore dairying can not be expanded rapidly and favorable years have never resulted in any serious over-production.

In the twenty years, 1870 to 1890, in spite of the scientific methods and machinery that were brought into dairying, the number of milk cows per 1,000 population increased only 31, that is to say from 231 per 1,000 persons in 1870 to 262 in 1890.

Some of the important contributions to dairying between 1870 and 1890 were:

1—First silo constructed in 1873.
2—First refrigerator car used in 1875.
3—First centrifugal separator brought from Sweden in 1882.
4—Babcock test given to world in 1890.
5—Use of thermometer and large number of dairy organizations started during this period.

1920-1925 TREND IN UNITED STATES NUMBERS MILK COWS

The total number of milk cows and heifers two years old and over in the United States in 1920 was 21,427,000. From 1920 to 1925 there was a slow expansion to a high point of 22,481,000 on January 1, 1925. The January 1, 1926, number receded to 22,148,000 and the January 1 1927 number to 21,824,000.

As affecting the yearly meat supplies of the nation, the development of the dairy industry does not seem likely to produce any serious unexpected surpluses, either through over-expansion of total numbers or forced marketings of milk cow stock. The reason for this lies in the inherent stability of the industry itself and the fact that dairy production can be readily increased to meet higher prices by heavier feeding. Regulation of feeding is a more satisfactory adjustment for short time fluctuations than increased breeding, the effect of which could not be secured in less than two to three years or the time required for a calf to develop into a producing milk cow.

On the other hand there is reason to expect that the consumption of dairy products in the United States will have a tendency to increase. In 1914 the United States was SIXTH in per capita consumption of Whole Milk in principal nations of the world; FIFTH in per capita consumption of Butter; and EIGHTH in per capita consumption of Cheese. Since then available records indicate some increase in per capita consumption of both whole milk and butter in the United States, although not to an extent to change the order of rank.

At the same time the above ranks were determined, the United States stood SEVENTH among nations of the world in average milk production per cow, being exceeded by Netherlands, Switzerland, United Kingdom, Denmark, Germany and Canada. It would seem reasonable to expect that future expansion of the dairy industry will come more largely through increasing the average production of milk per cow rather than through increasing the number of dairy cattle, since efficient production of dairy products offers the largest gains to the dairy industry. The average yearly production per cow in the United States is 4,000 pounds of milk containing about 160 pounds of butter fat. Selection, feeding and better breeding, it is claimed could double this average, with the result that fewer cows than at present could furnish the present supply of dairy productions at much less cost and the same number as at present could furnish a much greater production of dairy products to meet future expansion of a consumptive demand.

CURRENT ESTIMATES FOR ALL CATTLE

	United States	Eleven Western States	Montana
ALL CATTLE			
January 1, 1927	57,521,000	9,876,000	1,190,000
January 1, 1926	59,148,000	10,203,000	1,280,000
January 1, 1925	61,696,000	10,831,000	1,340,000
MILK COWS AND HEIFERS			
January 1, 1927	21,824,000	1,924,000	188,000
January 1, 1926	22,148,000	1,937,000	192,000
January 1, 1925	22,481,000	1,931,000	187,000
HEIFERS 1-2 (MILK)			
January 1, 1927	4,080,000	423,000	35,000
January 1, 1926	3,909,000	419,000	35,000
January 1, 1925	4,195,000	417,000	36,000

MARKETINGS MONTANA CATTLE 1926

The state brand office inspection records show a total of 504,472 cattle and calves shipped from the state for the calendar year of 1926 compared with 407,365 head in 1925 and 320,644 head in 1924. The largest marketings preceding 1926 were those of 1919 when 641,337 head moved out. However, a relatively large part of the 1919 exports went out to winter feeding and were returned the next spring, it is quite likely that 1926 exports represent the largest marketings of cattle and calves in the history of the state. Next in order come 1925 with 407,365 head and 1918 with 406,415 head.

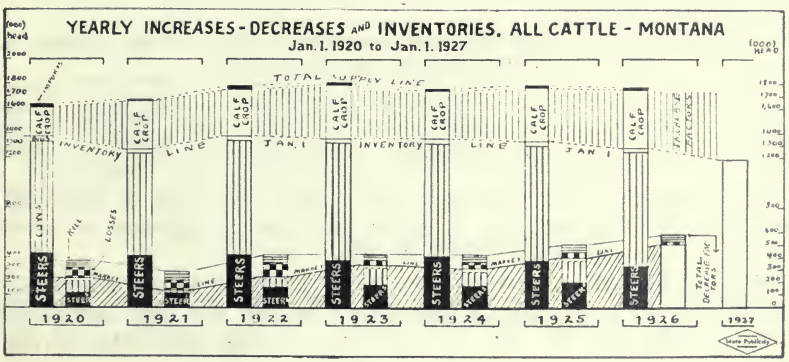
The 1926 marketings of cattle were influenced by drouth and short feed supplies in eastern Montana and to some extent in other northern and northwestern sections. As a result they have exceeded what would have been a normal output for the year and in spite of an increase in the 1926 calf crop of about 73,000, involved an inventory loss by January 1, 1927, of 90,000 head compared with January 1, 1926.

ANALYSIS CATTLE EXPORTS 1920-1925

Inspection records of the state office of Brand Inspection show the following classification of Montana cattle exports as steers, cows, calves and bulls for the period 1920-1925 inclusive.

Year	Steers	Cows	Calves	Bulls	Total	Total Classed	Total Exports
	%	%	%	%	%	(Head)	(Head)
1920	54.5	40.7	3.1	1.7	100	190,614	211,000
1921	78.5	16.9	3.4	1.2	100	111,739	147,000
1922	65.2	29.3	4.0	1.5	100	217,821	246,000
1923	55.0	37.0	6.0	2.0	100	258,040	343,000
1924	58.0	35.0	5.0	2.0	100	266,678	321,000
1925	51.4	41.1	5.7	1.7	100	335,408	407,000
1926	(Not Yet Classified)						504,000

From this data is evident an upward trend in cow and calf marketings and a downward trend in steer marketings. No data is available as to age classes of steers marketed during this period, but it is assumed that such data would show, if available, a strong shift toward yearling and long yearling steers and decreasing numbers of steers above the two year mark. In other words, it is expected that marketings would reflect the change in breeding practices toward a younger market animal.



INCREASE AND DECREASE FACTORS SINCE 1920 TO 1926

Marketings and calf crops are the two chief factors of decrease and increase operating to change inventory numbers of cattle. Estimates of calf crop are made annually on basis of a large number of reports from cattlemen, which are used to estimate the calf crop on the basis of January 1st numbers of breeding cows. Marketings records are actual computations from railroad shipments, stockyard receipts and brand inspections records. Other factors of increase and decrease include imports of cattle and calves from actual records; losses from disease and exposure which have been estimated from the actual experience of representative owners; and farm and local slaughter, based on actual data in census years and a fairly constant factor. In the aggregate, the last three factors are of much less importance than the first two.

The Livestock Commission of Montana through its system of brand inspection secures an accurate check upon all cattle shipped out of the state. The following table, taken from the secretary's report for 1921, shows the total number of all cattle sent out each year since 1885:

CATTLE SHIPMENTS FROM MONTANA
(1885–1926)

Year	Output	Year	Output	Year	Output
1885	79,089	1899	203,499	1913	172,299
1886	119,620	1900	160,055	1914	158,623
1887	82,134	1901	151,986	1915	173,936
1888	167,602	1902	230,000	1916	227,828
1889	123,880	1903	210,573	1917	333,056
1890	174,035	1904	288,775	1918	406,415
1891	250,000	1905	267,966	1919	641,337
1892	203,000	1906	276,722	1920	211,242
1893	279,158	1907	214,642	1921	147,413
1894	302,655	1908	241,320	1922	246,378
1895	206,460	1909	255,178	1923	342,687
1896	254,864	1910	243,662	1924	320,644
1897	252,162	1911	205,873	1925	407,365
1898	232,225	1912	188,675	1926	504,472

In the graph on page 49 are shown yearly inventories by classes plus the increase factors of calf crop and imports, and the yearly decrease factors, or marketings, losses and local slaughter, for all cattle in Montana for the period beginning January 1, 1920, to January 1, 1927. Marketings by classes are shown as well as inventories by classes. Classification of the other increase and decrease factors was estimated in the original data, but is not detailed in the graph. The inventory as shown is computed from January 1st estimates of classification of steers, cows, and bulls, all aged one year and over. The January 1st number of calves, under one year, were distributed into the three main classes of the inventories as shown in the graph. The trends of total supply line, inventory line and marketing line are considered quite representative of what has occurred in Montana's cattle industry during the period 1920 to 1927.

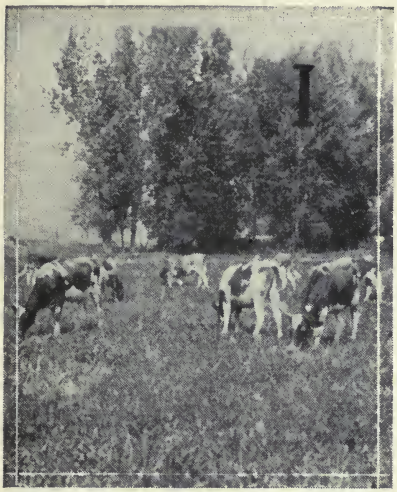
CATTLE AND CALVES—RECEIPTS AND SLAUGHTER, SIXTY-FOUR STOCKYARDS, UNITED STATES, 1926 AND 1925

Cattle and Calves	Receipts	Local Slaughter	Stocker and Feeder Shipments	Total Shipments
1925	24,066,684	14,462,034	3,822,859	9,348,049
1926	23,871,550	14,349,668	3,712,223	9,404,018
Per Cent Decrease	0.8%	0.8%	2.9%	0.4%

Calves alone show total receipts 1.6 per cent lower than in 1925 and local slaughter of 6.5 per cent less. Stocker and feeder shipments of calves in 1926 were 11.5 per cent larger than in 1925.

Compared with the 1921-1925 (five year) average, 1926 receipts of cattle and calves were 4.7 per cent larger; slaughter 10.6 per cent larger; stocker and feeder shipments 10.4 per cent smaller and total shipments 3.0 per cent smaller.

MONTANA DAIRY PRODUCTION



IN the monthly reports of a relatively large number of farmers, showing total cows in milk herd, number of cows milked and the total production of milk on the last day of each month, there is indicated for 1926, a slight decrease in the total milk herd, that has more than been offset by an increase in the percentage of the herd and a better average production per cow and per herd.

MILK PRODUCTION STUDY

Regular crop reporters each month are asked the following questions relative to milk production on their farm on a specific day: (A) Number of cows milked on your farm yesterday. (B) Number of all milk cows, dry or in milk, in your herd yesterday. (C) Total production of milk by your herd yesterday, either in pounds or gallons.

While this monthly survey has been in operation but little over two years and much of its value will lie in comparisons that will be built up as the records increase, the results of the 1925 and 1926 reports will be of interest to reporters cooperating in this study and are, therefore, summarized as tentative figures, for such months as the data was found to be representative. It is expected that the representativeness of the data will increase, since reporters have shown considerable interest in this survey in numbers of returns made each month.

RESULTS OF MILK PRODUCTION STUDY

(Comparative Data for April to November, 1925-1926)

	Reports		Cows in Herd		Cows Milked		Production Lbs.	
	1925	1926	1925	1926	1925	1926	1925	1926
April	263	294	1,903	2,356	1,050	1,392	19,022	26,872
May	298	221	2,439	1,862	1,471	1,186	31,619	23,966
June	250	271	1,829	2,267	1,183	1,473	25,449	32,411
July	257	265	2,221	2,014	1,541	1,413	31,236	32,356
August	300	225	2,308	2,013	1,540	1,391	30,354	28,401
September	250	269	1,943	2,002	1,168	1,399	20,583	26,938
October	269	270	2,110	1,891	1,281	1,167	21,561	21,506
November	252	332	1,962	1,687	1,049	1,020	18,809	15,995
Total	2,139	2,147	16,710	16,092	10,283	10,441	198,532	208,445
Average Per Herd	267.3	268.4	7.81	7.50	4.80	4.86	92.81	97.08
Average per day for cows milked, April to November							19.30	19.96

MILK COWS IN MONTANA

Of the total of 1,190,000 all cattle in Montana on January 1, 1927, the number of milk cattle is placed by estimates of the Federal Crop Reporting Service at 233,000 head. Of this number 188,000 are milk cows and heifers aged two years and over, and 35,000 are heifer calves intended primarily for milk. Estimates of milk cows include both dairy cows and cows of beef type kept primarily for milk purposes.

TREND OF MILK COWS SINCE 1920

Since 1920 the trend of milk cow numbers has been upward, although in the past year there has been some small contraction in total numbers as the result of a dry season and heavy marketings which apparently have included some milk cows of beef type.

(See table, page 46.)

MANUFACTURED DAIRY PRODUCTS

Manufactured dairy products in Montana in 1926 show a fair sized increase compared with 1925. All of Montana's dairy production is not manufactured within the state and records of the past few years indicate that state creameries are annually increasing their patronage from Montana dairymen. For this reason the annual increase in manufactured dairy products does not coincide exactly with the yearly changes in dairy production on farms.

The report of the State Dairy Commissioner for 1926 gives the following statistics relative to manufacture of dairy products by quarters for the year 1926 and 1925.

ESTIMATES OF DAIRY PRODUCTS 1926

Total production of Montana dairies in 1926 as estimated jointly by the State-Federal Crop Reporting Service and the office of the Dairy Commissioner was the equivalent of 22,375,000 pounds of butter-fat; compared with the total of 21,628,000 pounds equivalent in 1925 and 20,784,000 pounds equivalent in 1924. Value of this dairy production for 1926 is placed at $10,028,000; compared with $8,603,000 in 1925 and $7,282,000 in 1924.

ESTIMATED PRODUCTION AND DISTRIBUTION OF MONTANA DAIRY INDUSTRY TERMS OF WHOLE MILK

(Production based on 1925 census—Distribution on 1925 census basis manufactured products in all years on basis of records of creamery manufacture from State Dairy Division.)

	1924	1925	1926
Number milk cows December 31st	174,000	192,000	188,000
Number cows milked during year	167,967	176,300	180,000
Production per cow (gals.)	436	433	438
Total production, gallons	73,233,612	76,208,000	78,840,000
Total production, pounds	629,809,063	655,388,800	678,024,000
MILK USED ON FARMS (Lbs.)			
For making butter	131,308,200	131,400,000	131,500,000
As fluid milk	85,835,173	86,100,000	86,400,000
MILK SOLD OFF FARMS (Lbs.)	412,665,690	437,888,800	460,124,000
Butter fat basis	299,564,800	317,924,800	336,900,000
Cream basis	61,847,870	65,480,000	67,120,000
Whole milk	51,253,020	54,484,000	56,104,000
EQUIVALENT WHOLE MILK MANUFACTURED IN STATE (Lbs.)	356,157,950	378,342,170	414,262,372
As Butter	343,731,800	358,941,900	393,416,703
As Cheese	8,193,550	13,891,770	15,803,603
As Ice Cream	4,232,600	5,708,500	5,042,066
Apparent export from state by farmers, pounds equiv.	56,507,740	59,546,630	45,861,628

Average Number in Milk Herd
1926 Per Cent of 1925 ..... 96.0 per cent

Average Number Milked
1926 Per Cent of 1925 ..... 101.2 per cent

Average Production Per Herd
1926 Per Cent of 1925 ..... 104.6 per cent

MANUFACTURED DAIRY PRODUCTS—MONTANA

(From Reports of the State Dairy Division.)

	1924	1925	1926
Butter Pounds	14,178,938	14,807,836	16,230,062
Cheese Pounds	934,065	1,561,027	1,810,653
Ice Cream Gallons	564,676	761,638	672,724

SHIPMENTS OF MONTANA BUTTER TO CALIFORNIA MARKETS

(Pounds)

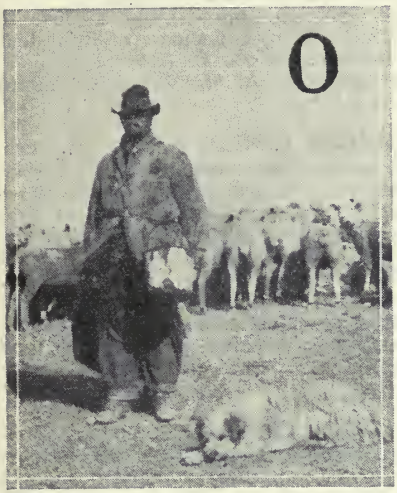
Market	1924	1925	1926
Los Angeles	.....	.....	1,934,838
San Francisco	770,000	1,896,000	2,331,098
Total	.....	.....	4,265,936

COMPARISON MONTANA WITH OREGON AND WASHINGTON SHIPMENTS TO SAN FRANCISCO MARKETS

(Butter—Pounds)

State	1924	1925	1926
MONTANA	770,000	1,896,000	2,331,098
Oregon	948,000	1,195,000	2,306,303
Washington	606,000	496,000	326,945
Total—Three States	2,324,000	3,587,000	4,964,346

SHEEP



ONE of the oldest as well as one of the most important enterprises in world agriculture is sheep raising. Wool ranking next to cotton among the fibers has probably contributed even more than cotton to the comfort of man in the spread of civilization. Present world consumption of wool is about 2 pounds per capita and of the United States, one of the world's largest consumers of wool, per capita requirement is about 5 pounds.

Lamb and mutton likewise have been important items of food for man. During the period 1912-1921 average annual per capita consumption of lamb and mutton in the United States was 6.2 pounds. Canada in 1910 averaged 9 pounds. Great Britain from 1895 to 1908 averaged 26.7 pounds; France in 1904 consumed 9 pounds, and Germany from 1904 to 1913 averaged only 2.2 pounds. There is, therefore, a wide variation in consumption of these meats.

At one time sheep were raised primarily for wool in the surplus producing regions that were usually remote from civilization and afforded low production costs against which wool, as a concentrated product could be readily transported long distances, without spoilage and at low cost.

The pioneer phase of the industry is passing, especially in the United States, where wool alone at present prices would not support the industry even under the most favorable conditions. In its present status, the sheep industry, in the principal surplus producing regions of the United States, is largely on a crop basis, which is to say, its surplus is marketed largely as wool clip and lamb crop. As between these two items, the lamb crop has come to be the more important source of income to the industry.

THE SHEEP INDUSTRY IN MONTANA

Montana is now in the second expansion period of her sheep industry. The first expansion period, or pioneer phase saw a rapid and substantial development of total numbers from less than half a million head in 1880 to more than six million head between 1900 and 1906. Numbers were fairly well held until 1910 and the next decade witnessed a sharp, steady decline until a low point of close to two million head was reached by 1920. From 1920 to 1926 numbers steadily increased until 2,880,000 head were inventoried as of date January 1, 1926. Heavy marketings during 1926 have reduced inventories on January 1, 1927, to 2,736,000 head. However, the latest inventory indicates an increase in both young ewes (2 to 5 years) and in yearling ewes, compared with last year which means that 1926 marketings have not been at the expense of breeding power.

SHEEP NUMBERS IN UNITED STATES

For the United States as a whole, trend of sheep numbers has been irregularly downward from 1900 to 1920 with the low point of this swing reached shortly after 1920 and some recovery made between then and 1925. During the past three years numbers have steadily increased from 38,112,000 on January 1, 1925 to 39,864,000 a year later and 41,909,000 on January 1, 1927. In eleven principal western states, including Montana, numbers have increased from 22,123,000 on January 1, 1925 to 23,577,000 on January 1, 1927.

Note: See page 46, Montana Sheep Numbers, 1870 to 1927.

SHEEP NUMBERS IN IMPORTANT COUNTRIES

In Australia the 1925 sheep population had risen to slightly above the ninety million mark from a point slightly below the eighty million mark in 1920.

In New South Wales there has been a sharp increase from about thirty million head in 1920 to a little more than forty million head by 1925.

In New Zealand there has been little net change from a number close to twenty-four million head in 1920, while the United Kingdom shows a slight loss from the 1920 number of about twenty-five million head.

In these important countries the net 1920-1925 change has been that of an increase of more than five per cent.

RECENT TREND IN NUMBERS, WORLD

Estimates for thirteen important countries in 1926 show a total of 239,-929,000 head or three per cent increase over 1925 and brings the number in these countries practically back to the pre-war level. These countries represent over one-third of the total world numbers in pre-war times and a relatively large percentage of the numbers in export producing countries. Still further increases are indicated for 1927 notably in Australia, United Kingdom, New Zealand, United States and probably the Union of South Africa. In Australia the 1927 number according to Australian correspondent of the Manchester Guardian, may reach one hundred million compared with ninety-seven million head in 1926 and ninety-three and one-tenth million head in 1925.

WORLD WOOL PRODUCTION

World wool production for 1926 was placed at 3,024,500,000 pounds compared with 2,998,160,000 pounds in 1925 and represents practically a return from the post-war slump to the pre-war average. Seven countries producing the bulk of the improved type of wool had 1,989,054,000 pounds in 1926 compared with 1,963,141,000 pounds in 1925.

WOOL PRODUCTION IN UNITED STATES

The 1926 preliminary estimate of wool production in the United States in 1926 was 269,054,000 pounds compared with 253,907,000 pounds in 1925; 242,-405,000 pounds in 1924; 224,330000 pounds in 1923 and 1909-1913 average production of 272,248,000 pounds.

WOOL PRODUCTION MONTANA

The 1926 wool clip was estimated at 23,672,000 pounds compared with 20,-967,000 pounds in 1925; 19,314,000 pounds in 1924; 17,775,000 pounds in 1923 and the 1909-1913 average of 33,230,000 pounds.

1927 WOOL OUTLOOK

World wool production in 1926 was slightly larger than in 1925 and the largest of the post-war period. London prices of wool are below those a year ago, but at the opening of the year the market was firm and demand generally good. Low southern hemisphere stocks at the beginning of the 1926-1927 shearing season, together with prospects of improvement in industrial conditions in the United Kingdom and a good demand from Germany are strengthening factors in the outlook for 1927.

1927 MUTTON OUTLOOK

Sheep and lamb slaughter in the United States has been gradually increasing since 1922 and federal inspected slaughter for 1926, amounting to nearly thirteen million head was eight per cent larger than in 1925 and the largest since 1921.

Lambs on feed at the opening of the year were eight per cent less than on January 1, 1926. Increased numbers in the corn belt were more than offset by decreases outside the corn belt especially in Colorado and western Nebraska feeding areas.

Consumptive demand for lamb continued strong through 1926, dressed lamb prices decreasing no more than in proportion with the increased market supplies. Allowing for the usual 1.5 per cent annual increase in demand due to population growth, the possible slight decline in business activity in 1927 is not expected to lower 1927 demand compared with 1926.

A recovery from the relatively low present (January 1927) prices of lambs is expected by spring as the decreased supplies of fed lambs become a market factor. The second half of the 1927 marketing season will reflect the size

of the 1927 lamb crop and attitude of breeders with respect to holding back ewe lambs. If an average percentage of lambing occurs in 1927 and fewer ewe lambs are held back, as would appear likely from present indications, market supplies of the second half of 1927 may be somewhat larger than during this period in 1926.

CYCLES OF THE SHEEP INDUSTRY

The history of the sheep industry is made up of periods of prosperity followed by periods of extreme depression. War has always played a prominent part in these cycles by creating an abnormal demand for wool to which sheepmen have always responded to the limit of their resources. His profits in war times have been followed by losses when wars terminated. No instance recorded in recent centuries has not found the sheep industry at the conclusion of a war vastly over-expanded compared with the peace time need. Aggravating this situation there is always an accumulation in war times of world stocks of both raw and manufactured wools.

FACTORS AFFECTING PRICE CHANGES

The wool grower is affected by peace time factors which operate to change prices of sheep and lambs and wool setting up short annual variations with consequent expansion and contraction of the sheep industry. These factors considered under two heads, sheep and lamb prices, and wool prices may be summarized as follows:

MARKET PRICES OF SHEEP AND LAMBS

Market supplies, consumptive demand, grade or quality of the animal and the price of wool are the principal factors determining the price of sheep and lambs.

Supplies of sheep and lambs at market centers vary widely from year to year and with the season of the year. An eighth of the annual receipts arrive in two months September and October, one tenth in August and November and only about one fifteenth in the other eight months. Under war conditions during the period 1915 to 1923 there has been as high as 48 per cent variation in yearly receipts from the lowest to the highest year in this period. Between 1926 and 1925 receipts there was a variation of 8 per cent.

Consumption likewise varies from year to year. Between 1907 and 1923 per capita consumption ranged from 4.6 pounds in 1917 to 8.2 pounds in 1912, an extreme variation of 3.6 pounds or 74 per cent of the 1917 consumption. Since the American sheep producer is dependent upon a domestic consumption market such a variation is an important consideration. Although less in number of pounds per year compared with other meats, the variation in per capita consumption of lamb and mutton is relatively greater.

ANNUAL PER CAPITA CONSUMPTION OF LAMB AND MUTTON, BEEF, VEAL, PORK, AND LAMB, 1907–1923

Year	Lamb and Mutton	Beef	Veal	Pork, Excluding Lard	Lard
	Lbs.	Lbs.	Lbs.	Lbs.	Lbs.
1907	6.4	79.7	7.1	74.1	12.5
1908	6.2	72.4	6.8	85.4	14.3
1909	6.6	76.2	7.5	68.6	11.6
1910	6.5	71.8	7.4	60.3	10.5
1911	7.8	68.4	7.0	75.1	11.8
1912	8.2	61.7	7.0	70.6	11.4
1913	7.6	60.8	5.0	72.5	11.7
1914	7.5	59.3	4.4	70.3	12.1
1915	6.4	56.0	4.3	70.2	13.2
1916	6.1	57.3	5.3	73.1	14.4
1917	4.6	61.1	6.5	58.5	11.9
1918	4.7	65.2	7.4	67.6	13.6
1919	5.8	58.0	7.7	68.6	12.8
1920	5.5	61.2	7.9	69.0	13.1
1921	5.9	57.2	7.0	72.9	11.3
1922	5.0	60.8	7.3	75.7	14.3
1923	5.2	61.9	7.9	86.1	15.4
1924	5.3	62.4	8.3	86.3	15.6
1925	5.3	63.1	8.8	77.1	13.4

Grades of sheep and lambs for slaughter are determined by quality, conformation and finish for any given lot. Lambs, accordingly are graded as prime, choice, good, medium, common and cull and inferior in order named; wethers, prime to cull, and ewes, choice to canner. Variations in prices quoted on these grades vary according to both grade, and demand for that grade.

Wool prices is a third factor entering into determination of sheep and lamb prices and is the source of more complications than any other single item. This is due both to the wide variation in wool prices and the amount of wool car-

ried by the animal in different seasons of the year. With variations both in the monthly price of wool and the amount carried by the animal, prices will vary accordingly.

LONG TIME VARIATION IN SHEEP AND LAMB PRICES

Sheep and lamb prices over a long period of time show a greater sensitiveness to variations in business, trade and economic conditions than do most other commodities. Between 1890 and 1923, the average yearly price of lambs at Chicago ranged from $2.80 per 100 in 1924 to $16.60 per 100 pounds in 1918. Compared with general commodity prices which did not reach bottom in this cycle until 1996 and the peak in 1920, sheep prices show a tendency to anticipate rather than follow fluctuations in general trade conditions.

MARKET PRICES OF WOOL

Fluctuations in wool prices while not so wide as those of mutton and lamb have swung more widely than most other commodities in past years. One reason has been the effect of world supply and demand and another has been the long series of tariff enactments, raising or lowering or eliminating import duties on wool from 1816 to 1922, when twenty-two legislative enactments have tended to modify the play of economic forces, and have resulted in materially changing the available supplies of wool in the United States and, therefore, in raising or lowering wool prices.

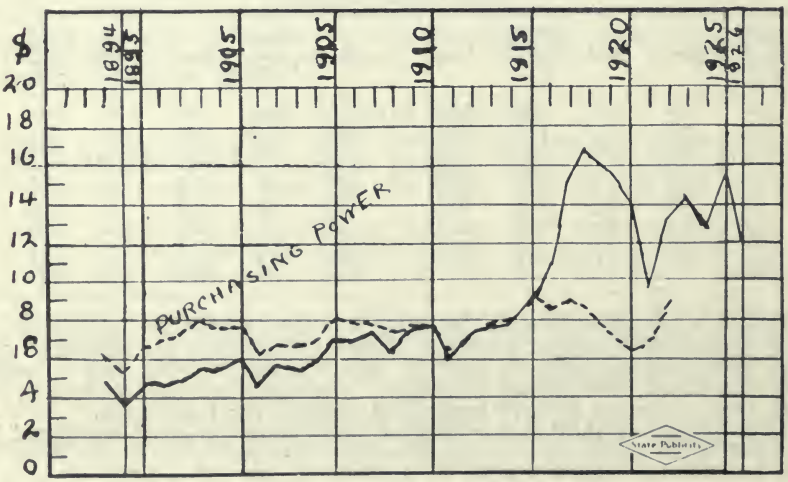
Average prices of medium grade wool over a period of 100 years range from 19.5 cents per pound in eastern markets for Ohio fleece wool in 1896 to 91.5 cents for the same grade in 1918, an extreme range of 72 cents or 469 per cent.

War invariably has stimulated the demand for wool and advanced wool prices. During the Civil war, wool sold up to $1.00 per pound. In 1867 the market broke sharply, but during 1871 and 1872 prices again rose to relatively high levels, with the Franco-Prussian war in Europe being an important factor. In 1873 a business panic occurred and from that time to 1879 wool prices declined steadily. Revival of business occurred in 1879 and wool prices responded temporarily, but on the whole declined after 1880. Increased wool production in the southern hemisphere during this time began to press world markets and by the middle eighties there was a pronounced decline in wool prices with the panic of 1893 hastening this downward movement. The average prices of 1901 to 1910 were lower than the average of 1840 to 1890 if the Civil war be excluded. In 1913 the trend of wool prices was again downward.

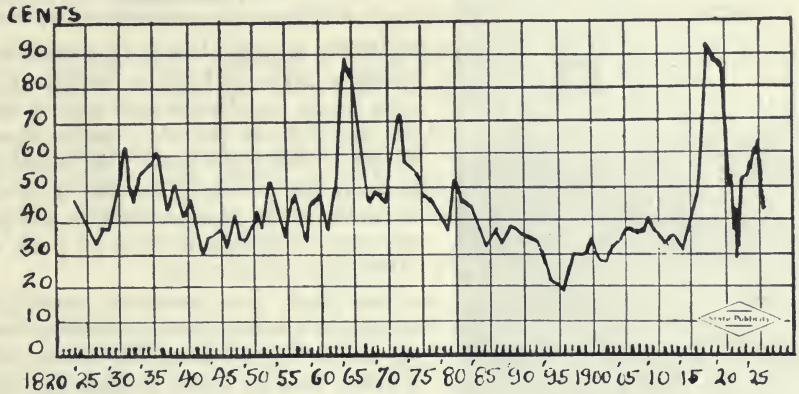
During the World war prices of wool broke all previous records with fine

30 YEARS OF LAMB PRICES AT CHICAGO

(Solid Line Price per 100 Lbs.)



100 YEARS OF WOOL PRICES—BOSTON

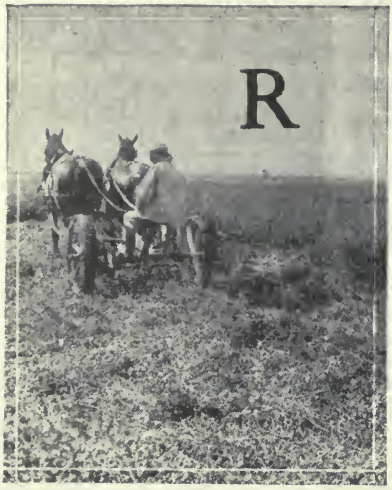


staple territory wool on a scoured basis selling at one time for $1.85 per pound in Boston. On signing the Armistice prices broke but with the reopening of the London wool sales in April, 1919, recovered quickly and during February and March, 1920, prices made a new advance to $2.05 per pound.

The average price of three-eights blood, unwashed Ohio and Pennsylvania wool for 1921 averaged 28 cents at Boston compared with 53 cents in 1920, 67 cents in 1919, and 77 cents in 1918. In 1922 prices averaged 10 cents over 1921 and in 1923, 27 cents over 1921 with improvement through 1924 and 1925, since which time there has been a downward tendency.

MONTANA WOOL PRODUCTION
(1880–1925)

Year	Production (Pounds)	Year	Production (Pounds)
1880	1,000,000	1906	35,815,000
1886	5,031,000	1907	30,820,000
1887	5,283,000	1908	32,200,000
1888	Unknown	1909	35,000,000
1889	9,740,000	1910	33,600,000
1890	13,929,000	1911	34,875,000
1891	14,471,000	1912	31,175,000
1892	15,670,000	1913	31,500,000
1893	17,697,000	1914	30,177,000
1894	17,642,000	1915	26,950,000
1895	19,032,000	1916	24,570,000
1896	21,530,000	1917	23,342,000
1897	20,110,000	1918	18,685,000
1898	20,935,000	1919	18,267,000
1899	30,438,000	1920	16,000,000
1900	26,020,000	1921	16,400,000
1901	30,554,000	1922	16,770,000
1902	35,567,000	1923	17,775,000
1903	30,600,000	1924	19,314,000
1904	37,773,000	1924	20,967,000
1905	37,700,000	1926	23,672,000



HORSES

REVIEWING briefly the horse industry in Montana takes us back to the days of the open range and the importation of breeding stock from the old famous Spanish horses of the Southwest. The horses bred to serve the needs of the cattle industry were, therefore, of good ancestry and under Montana conditions developed a high quality of spirit and stamina.

The Boer war, however, marked the beginning of the industry of horse breeding and developed Miles City as one of the World's largest horse markets to which came buyers from all nations of the world. With the demand for horses during the World war, the industry expanded greatly with the 1912 horse population more than doubling by 1919 when a total of 720,000 head were enumerated by the United States census.

After the World war the market for horses practically ceased and numbers have rapidly declined to a total of 564,000 head on January 1, 1927. Meanwhile there has been an accumulation of unowned horses on many of the open ranges of the state, that has given rise to the slaughter and shipment of these animals to eastern canning factories, after they had been declared a nuisance by the stockmen.

No definite statistics are available as to the percentage of the state's annual shipments that ultimately reach the canning factory, although some idea of the size of this item is afforded by the shipment to Butte during 1926 of 7,677 head, the great bulk of which were for the horse abbatoir.

Exclusive of this item 56,493 head were shipped to points outside the state in 1926 and a total of 54,272 were shipped in 1925.

Montana still has a surplus of serviceable horses, exclusive of the unowned range horses.

At present there is no incentive for breeding other than the replacement of work stock.

MULES

The general tendency of numbers of mules has been upwards although the state total is very small and mules have as yet found but very little place on Montana farms. The January 1, 1927, number of mules and mule colts was placed at 11,000 head compared with 9,000 head enumerated by the census of 1920.

SWINE

Raising hogs in Montana has been mainly a side line, but the industry has been on the upgrade during the past twenty years which have witnessed two peaks in production, one from 1915 to 1917 when a total of 270,000 head were inventoried in January, 1916, and the other from 1923 to 1925 when the January inventory reached 292,000 head in 1924.

The unfavorable corn crops of 1924, 1925 and 1926 have undoubtedly operated to curtail the last expansion period and the dry seasons of 1917, 1918 and 1919 were very likely the biggest factor in the reaction from the first big expansion movement.

Growing population in the Northwest and the Pacific coast markets have been a factor in Montana's hog production, combined with the development of corn acreage in the state during the past ten years, when from about 50,000 acres, in 1914, corn acreage developed to 420,000 acres in 1924.

Note: For Horse and Swine numbers 1870 to 1927, see page 46.

With the experience with corn in average years and the possibility of better utilization of such other feeds as barley and alfalfa, it is expected that hog production in Montana will continue its present general upward trend.

The peak of hog shipments from the state was reached in 1925 when a total of 225,000 were marketed at outside points. In 1926 shipments totaled 166,000 head. To date the large bulk of Montana's hog shipments have continued to west coast markets. During the period 1920 to 1925 both the north and south Pacific states have shown a rather strong decline in hog production compared with that of the period 1915 to 1920, while the Mountain states, including Montana, have greatly increased production during 1920 to 1925 compared with 1915 to 1920. Trends of production in the coast regions, therefore, will be an important factor in the coast market outlets for Montana hogs.

HOG OUTLOOK FOR 1927

Little if any increase in hog production in the important corn belt region in 1927 is indicated by the annual December pig survey of the U. S. Department of Agriculture. Relatively slight changes are anticipated in consumptive demand for pork both domestic and foreign. Market supplies in 1927, since it is not likely that cholera losses in 1927 will equal the heavy 1926 losses, promise to be slightly larger than in 1926. Hog prices are expected to continue on comparable levels with 1926 through the first half of 1927, but, with a probable slight increase in later supplies, are expected to range slightly below the favorable 1926 levels during the latter part of 1927.

In the Pacific coast states of Washington, Oregon and California, the pig crop survey show 1926 fall breeding for 1927 spring pigs as follows: Washington, 25.8 per cent more sows bred compared with the fall of 1925; Oregon, an increase of 39.4 per cent, and California, an increase of 15.4 per cent.

Inter-mountain competitors of Montana on 1926 fall breedings compared with the preceding year show the following comparisons: Idaho, 25.8 per cent more sows bred; Wyoming, 32.2 per cent more sows bred; Colorado, 14.7 per cent more sows bred; Utah, 26.3 per cent more sows bred, and Nevada, 37.5 per cent more sows bred.

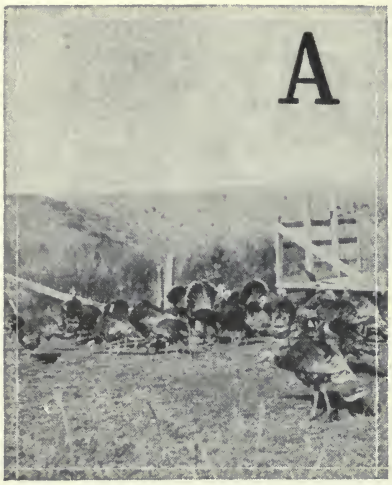
In considering the indications of the pig crop survey on sows bred for spring pigs, it is well to note that for past surveys in years when increased breeding was reported, that actual farrowings reported the following spring have much below the intentions to breed reported in December. Another factor in determining the spring pig crop will be the weather at time of farrowing and the average size of the litters that are saved.

FROM MONTANA'S VIEWPOINT

The 1927 outlook for hog production in Montana is quite favorable. The indications from the December pig survey pointed to an increase of 9.4 per cent in numbers of sows bred for 1927 spring pigs, which if carried out will increase hog production in Montana in 1927.

MONTANA HOG INDUSTRY, 1920–1927

	1924	1925	1926	1927
January 1 Number	292,000	280,000	250,000	240,000
Total Year Supply	636,000	613,000	547,000	.....
Exports	167,000	226,000	166,000	.....
Losses	9,000	9,000	10,000	.....
Local Slaughter	130,000	130,000	132,000	.....



POULTRY

ALTHOUGH there has been a decrease in total numbers of farms the trend of poultry production in Montana has been upward since 1920, indicating that poultry raising has become a more important farm enterprise relatively than it was in 1920.

An important phase of the industry in the state is the production of turkeys for outside markets. Unfortunately, so far little reliable information is available concerning the numbers and annual value of the turkey crop. An effort is being made now to gather marketing statistics on this item.

A summary of the poultry statistics of numbers since 1880 is as follows:

POULTRY ON FARMS AND EGG PRODUCTION

(Data from Federal Census.)

Year	Chickens On Farms	Other Fowls On Farms	Eggs Produced (Dozens)
1880	58,244	2,160	208,794
1890	233,660	9,992	834,166
1900	531,660	24,900	3,002,890
1910	966,690	44,150	6,004,051
1920	2,055,120	72,734	11,858,042
1925	2,544,698	(140,000)*	13,403,266

*Census did not enumerate other poultry in 1924. Figure used here is an estimate and relatively large increase compared with 1920 is due to development of turkey industry in this period.

CHICKENS RAISED, EGGS PRODUCED AND VALUES

(Data from Census.)

	CHICKENS		EGGS (Dozens)		
	No. Raised	Value	Produced	Value	Total Value
1909	1,432,471	$ 797,450	6,004,051	$1,610,766	$2,408,216
1919	3,247,090	2,272,963	11,858,042	4,624,636	6,897,599
1924	3,067,280	1,881,254	13,403,326	3,493,476	5,374,730

ESTIMATED SALES OF POULTRY AND PRODUCTS

	From Chickens and Eggs	Turkeys	Total
1924	$2,926,000	$718,000	$3,644,000
1925	3,240,000	819,000	4,059,000
1926	3,360,000	861,000	4,221,000

EGG PRODUCTION STUDY 1926-1925

A study of egg production is made through monthly inquiries to reporters of the United States Division of Crop and Livestock Estimates. The following questions are asked: (A) Number of hens, including pullets of laying age, were in your flock yesterday. (B) Number of eggs produced by your flock yesterday. Results of this survey for both 1926 and 1925 are given here for the information of the reporters cooperating. Much of the value of such surveys will arise from comparison with past years and will develop with length of records.

	No. of Farms		No. Hens and Pullets in Flock*		No. Eggs Produced		Per Cent Whole Flock Producing	
	1926	1925	1926	1925	1926	1925	1926	1925
January	477	495	33,565	27,105	5,768	3,110	17.2	11.5
April	324	282	20,555	18,243	11,717	7,283	57.0	39.9
June	285	271	15,646	16,405	7,998	8,875	51.1	53.7
May	220	333	15,281	23,569	9,140	13,090	59.8	58.0
July	280	276	15,079	16,480	6,642	7,532	44.0	45.7
August	222	300	11,004	16,036	4,374	6,248	39.8	38.9
September	245	262	12,622	11,645	5,180	4,532	41.0	38.9
October	275	278	15,987	15,710	4,257	4,709	26.6	29.9
November	229	262	12,750	14,580	2,275	1,956	17.8	13.4
December	360	311	21,624	19,348	2,307	1,865	10.6	9.6
Average Ten Months	291.7	307.0	17411.3	17912.1	5965.8	5920.0	34.3	33.1

*Number of hens and pullets in flock of laying age on last day of month preceding.

BEES AND HONEY IN MONTANA

(Bees on farms, honey and wax produced, with value from U. S. Census Bureau.)

YEAR	BEES		HONEY		WAX	
	No. of Farms	No. of Hives	Pounds Produced	Value $	Pounds Produced	Value $
1909	795	6,313	135,510	21,802	394	133
1919	1,199	11,918	630,608	157,656	7,682	2,614
1926 (Est.)*	1,800	37,000	3,150,000	521,000	23,000	9,000

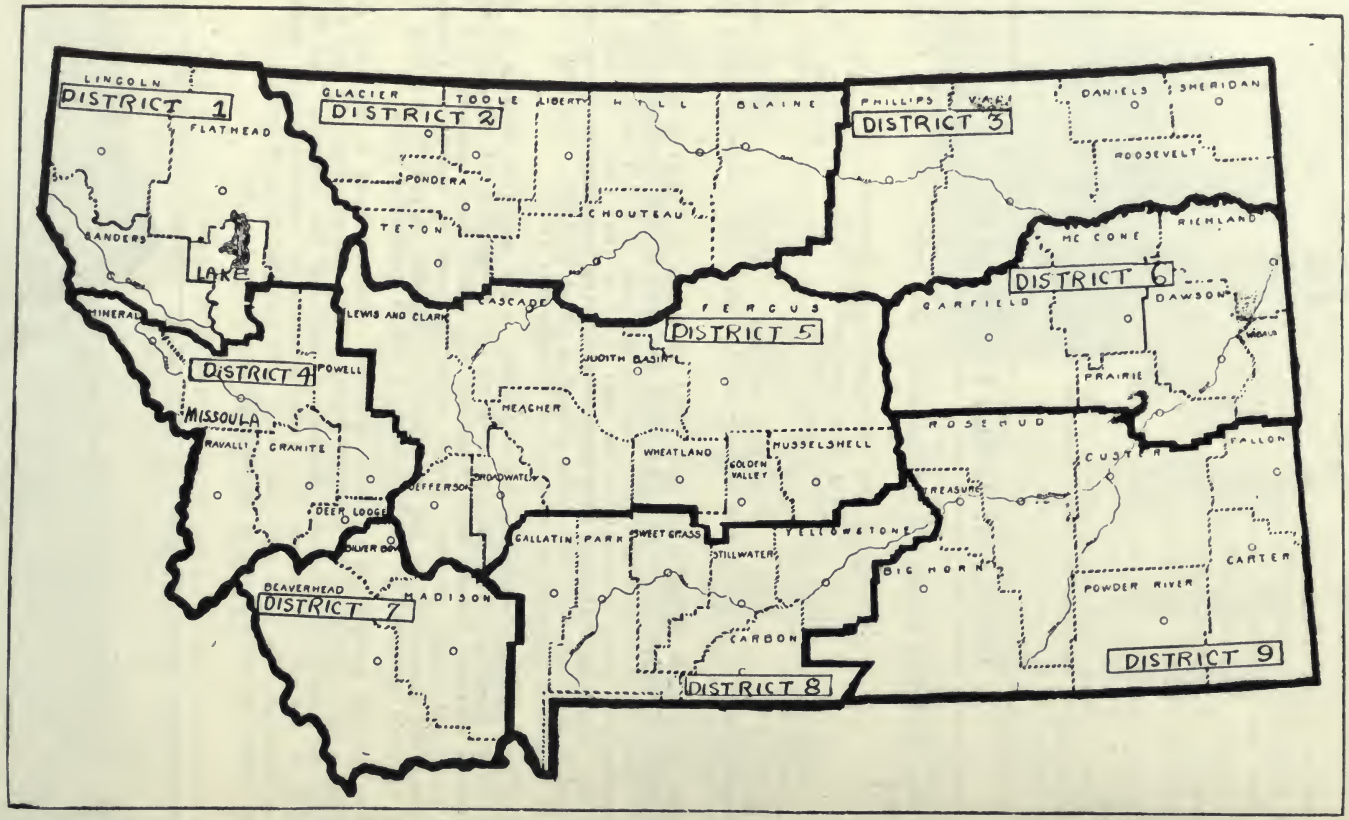
*Estimates based on records of state bee inspector which show 19,202 colonies licensed in 1926 or something less than 1300 farms.

The above table indicates the growth of the honey bee industry in Montana up to 1919. However, since that time there has been no enumeration of the industry although it is evident that a marked increase in honey production and bee-keeping has taken place during the past three or four years. In 1925 the State Bee Inspector estimated that approximately 100 carloads of honey were produced in Montana, the value being placed at about $500,000. The 1926 honey crop is valued at $530,000 an increase of $30,000 over 1925.

The bee-keeping industry is found largely in the irrigated sections of the state where large acreages are devoted to the production of alfalfa, sweet and Alsike clover. These three crops are important honey pasture and the main source of supply for the surplus honey produced by the bees. Climatic conditions are unexcelled for the industry and Montana is rapidly reaching the point where it promises to rank high as a honey producing state.

The natural advantages found in Montana, however, have in the past few years been seriously offset by diseases which destroy the colonies, and that have been spread greatly by the large number of negligent bee keepers. The State Legislature has enacted several laws relative to disease eradication and inspection of apiaries. In 1925 and 1926 over 2100 colonies were inspected out of which nearly 800 were found to be affected.

MONTANA CROP REPORTING DISTRICTS



To facilitate tabulation and analysis of data in crop reporting work, counties with generally similar farming conditions are grouped into districts as shown above. In most county tables herein, grouping has been on this plan, instead of alphabetically.

DISTRICT CROP AND LIVESTOCK BASIC STATISTICS

Prepared by Mildred R. Cossey,
Assistant to Agricultural Statistician.

CROP DISTRICT I

In the northwestern corner of the state we find four counties, Flathead, Lincoln, Lake and Sanders grouped together to form Crop District No. One, which in 1924 had 2 per cent of the state total land in farms.

All of this state's principal field crops are found in this district, but only in Barley and Potatoes does it assume importance, having 12 and 16 per cent respectively of the state's total production of these crops and 18 per cent of the commercial potato production of the state. In other cropse its percentages of the total state production are as follows: Spring wheat, 2 per cent; Winter wheat, 6 per cent; Rye, 1 per cent; Oats, 4 per cent; Corn, 1 per cent; All Tame Hay, 5 per cent; Wild Hay, 2 per cent; Timothy Hay, 8 per cent; Alfalfa Hay, 5 per cent; and Clover Hay, 19 per cent. During the past three years Seed Peas have come to be an important enterprise in this area and now approximately 9 per cent of the state production originates here. About 2 per cent of the total state production of Alfalfa Seed is found in District One, and 10 per cent of the truck crops raised in the state come from this section.

In fruit production the Flathead Valley stands second to the Bitter Root Valley in District Four. District One has about 12 per cent of the state's total number of bearing apple trees and about 10 per cent of the commercial apple trees in the state. Small production of plums, early apples, berries and sweet cherries is also found in this valley.

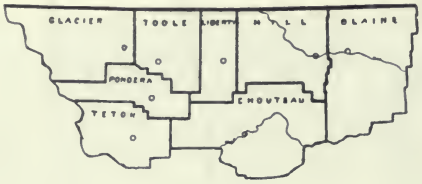
In livestock production this district has the following percentages of the state's total livestock: Horses, 3 per cent; Dairy Cows, 11 per cent; Beef Cows, 2 per cent; All Cattle, 3 per cent; Sheep, 1 per cent; Swine, 4 per cent; and Poultry, 7 per cent.

VALUATION STATISTICS FOR DISTRICE ONE

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$4,771,500	$2,503,000
1926	4,057,360	2,193,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

DISTRICT TWO—NORTH CENTRAL MONTANA



In Crop District Two there are a little over 13.7 million acres of land. The district is composed of Blaine, Chouteau, Glacier, Hill, Liberty, Pondera, Teton and Toole counties. In 1924 this district was credited with 18 per cent of the state's total land in farms.

Practically all the principal field crops grown in the state are found in this district which assumes importance in both Rye and Spring wheat. Acreage devoted to Rye in this district in 1824 was 39 per cent of the state total, while Spring wheat took second place with 21 per cent. Grain Hay also has an important place in the cropped acreage, with 20 per cent of the state total. In other crop percentages of the state total production are as follows: Winter wheat, 11 per cent; Barley, 14 per cent; Oats, 11 per cent; Flax, 3 per cent; Corn, 8 per cent; Potatoes, 14 per cent, with 3 per cent of the total commercial potato acreage; Tame Hay, 6 per cent; Wild Hay, 12 per cent; Timothy Hay, 4 per cent; Clover Hay, 6 per cent; Mixed Timothy and Clover Hay, 2 per cent; Alfalfa Hay, 7 per cent. Approximately 14 per cent of the truck crops originate in District Two and about 3 per cent of the bean production of the state is credited to this area.

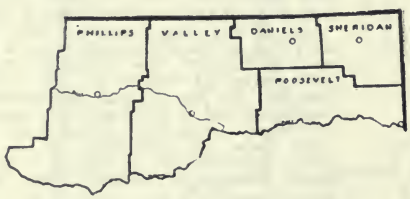
North central Montana has the following percentages of the state total livestock production: Milk Cows, 18 per cent; Beef Cattle, 11 per cent; All Cattle, 13 per cent; Horses, 17 per cent; Sheep, 16 per cent; Swine, 9 per cent; and Poultry, 14 per cent.

VALUATION STATISTICS FOR DISTRICT TWO

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$17,585,700	$ 9,225,000
1926	19,075,000	10,308,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

CROP DISTRICT THREE—NORTHEASTERN MONTANA



We find in the northeastern corner of Montana a group of five counties which go to make up what is known as Crop District Three. These counties are Daniels, Phillips, Roosevelt, Sheridan and Valley, and in 1924 this area was credited with 12 per cent of the state's total land in farms.

In this district most of Montana's field crops are to be found, but by far the most important are Flax, with 28 per cent of the state production, and Spring wheat with 28 per cent of the state total. Rye and Oats are also important, having 24 and 23 per cent of the state total respectively. In other crops District Three has the following percentages of the state total: Corn, 20 per cent; Winter wheat, 2 per cent; Barley, 9 per cent; Potatoes, 6 per cent; Tame Hay, 5 per cent; Wild Hay, 13 per cent; Alfalfa Seed, 13 per cent; Sugar Beets, 3 per cent; Beans 4 per cent; Clover Hay, 8 per cent: Alfalfa Hay, 3 per cent; Grain Hay, 10 per cent. Only 5 per cent of the total truck crop production of the state originates in this district.

In livestock production this district has the following percentages of the state total: Milk Cows, 12 per cent; Beef Cows, 9 per cent; All Cattle, 10 per cent; Horses, 16 per cent; Sheep, 7 per cent; Swine, 10 per cent; Poultry, 10 per cent.

VALUATION STATISTICS FOR DISTRICT THREE

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$16,851,075	$ 8,840,000
1926	18,167,120	9,187,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

CROP DISTRICT FOUR—WEST CENTRAL MONTANA

In Crop District Four in west central Montana are Deer Lodge, Granite, Mineral, Missoula, Powell and Ravalli counties, and in 1924 took credit for 4 per cent of the state's total land in farms.

Percentages of field crops in this district are relatively small; the most important being found in the hay group. Mixed Clover and Timothy Hay having 41 per cent of the total state production. Next in importance is the Commercial Potato crop with 38 per cent of the state total production, although we find District Four is credited with but 15 per cent of the state's total potato acreage. In other crops its per centages of the state's total are as follows: Spring wheat, 2 per cent; Winter wheat, 2 per cent; Rye, 2 per cent; Barley, 6 per cent; Oats, 5 per cent; Tame Hay, 12 per cent; Wild Hay, 6 per cent; Timothy Hay, 9 per cent; Clover Hay, 6 per cent; Alfalfa Hay, 7 per cent; Grain Hay, 3 per cent. As is the case in District One, we find the Seed Pea industry assuming importance in the fourth district, with 10 per cent of the total state production to its credit. About 24 per cent of the state's total truck crop production originates in this district.

In fruit production the west central district takes credit for the bulk of the bearing apple trees in the state, having 79 per cent of the total and about 86 per cent of the commercial apple trees of bearing age in the state. Small fruits, early apples and plums are raised in the Bitter Root Valley and in recent years the cherry crop has become an important fruit here. It is estimated that District Four had an income of about $67,000 in 1926 from its miscellaneous fruit crops.

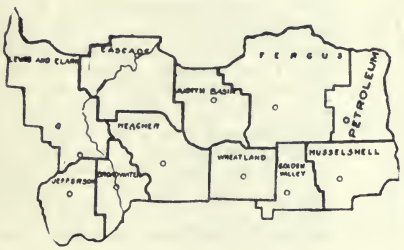
In livestock production this district has the following percentages of the state total: Horses, 5 per cent; Dairy Cows, 16 per cent; Beef Cows, 6 per cent; All Cattle, 5 per cent; Sheep, 7 per cent; Swine, 11 per cent; and Poultry, 6 per cent.

VALUATION STATISTICS FOR DISTRICT FOUR

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$5,864,500	$3,077,000
1926	5,491,500	2,968,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

CROP DISTRICT FIVE—CENTRAL MONTANA



Out of eleven counties in central Montana, Broadwater, Cascade, Fergus, Golden Valley, Jefferson, Judith Basin, Lewis and Clark, Meagher, Musselshell, Petroleum and Wheatland, is formed Crop District Five, which in 1924 had 20 per cent of the total cropped acreage of the state—the leading district in size and land in farms.

All of the state's principal field crops are found in District Five; most important is the Tame Hay group in which Timothy leads with 49 per cent of the state total; next in rank is Winter wheat with 38 per cent of the state total, closely followed by Alfalfa Hay, with 23 per cent. Grain Hay is also of considerable importance, having 21 per cent of the state total. The other crops have percentages of the state total as follows: Spring wheat, 18 per cent; Rye, 8 per cent; Barley, 17 per cent; Oats, 14 per cent; Flax, 1 per cent; Corn, 12 per cent; Potatoes, 18 per cent (This district also takes credit for 19 per cent of the total commercial potato production of the state); Wild Hay, 14 per cent; Alfalfa Seed, 1 per cent; Beans, 4 per cent; Clover Hay, 17 per cent, and Mixed Clover and Timothy Hay, 12 per cent. Since the seed pea industry has proven profitable in other sections of the state, farmers in central Montana have gone into production and now have 7 per cent of the state total production. About 8 per cent of the total production of truck crops is credited to this district.

In fruit production District Five is low, having but 1 per cent of the state's number of bearing apple trees. There are some small fruits grown in this section, although the acreages are negligible, being found mostly in small patches and home gardens.

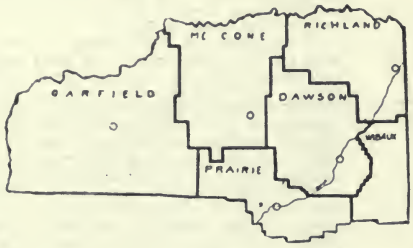
In livestock production this district has the following percentages of the state total: Horses, 17; Dairy Cows, 19; Beef Cows, 21; All Cattle, 20; Sheep, 25; Swine, 20; and Poultry, 18 per cent.

VALUATION STATISTICS FOR DISTRICT FIVE

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$17,440,775	$ 9,149,000
1926	20,487,360	11,071,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

CROP DISTRICT SIX—EAST CENTRAL MONTANA



Six counties in east central Montana make up Crop District Six, and include Dawson, Garfield, McCone, Prairie, Richland, and Wibaux. In 1924 this section was credited with 11 per cent of the state's total land in farms.

Most of the principal field crops grown in the state are found in this district, although flax with 43 per cent of the state total production leads all other crops. Corn falls into second rank with 28 per cent of the total production. Percentages of other crops are as follows: Spring wheat, 14 per cent; Winter wheat, 5 per cent; Rye, 9 per cent; Barley, 8 per cent; Oats, 16 per cent; Potatoes, 8 per cent; Tame Hay, 7 per cent; Wild Hay, 7 per cent; Alfalfa, Seed, 17 per cent; Beans, 11 per cent; Seed Peas, 1 per cent; Sugar Beets, 15 per cent; Clover Hay, 14 per cent; Alfalfa Hay, 4 per cent; Grain Hay, 19 per cent. About 9 per cent of the truck crops produced in Montana originate in this district.

In livestock production this district has the following percentages: Horses, 18; Dairy Cows, 5; Beef Cows, 11; All Cattle, 11; Sheep, 6; Swine, 14; and Poultry, 12 per cent.

VALUATION STATISTICS FOR DISTRICT SIX

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$17,440,775	$ 9,149,000
1926	20,487,360	11,071,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

DISTRICT SEVEN—SOUTHWESTERN MONTANA

Crop District Seven, in southwestern Montana, is composed of three counties, Beaverhead, Madison and Silver Bow, and has the smallest land area of the nine districts found in the state. In 1924 this district had 5 per cent of the state's total land in farms.

Of the principal field crops found in Montana the only one of importance in this district is in the Hay group. Wild Hay leads the entire state with 31 per cent of the total production. The other crops show the following percentages of the total production: Spring wheat and Winter wheat have 1 per cent each of the state total production; Rye, 2 per cent; Barley, 3 per cent; Oats, 2 per cent; Corn, 1 per cent; Potatoes, 5 per cent; Tame Hay, 8 per cent; Timothy Hay, 8 per cent; Clover and Timothy Hay mixed, 11 per cent; Alfalfa Hay, 10 per cent; Grain Hay, 2 per cent. We find about 4 per cent of the total truck crop production of the state originating in District Seven; and here also we find 5 per cent of the total Seed Pea production.

We find 1 per cent of the total number of bearing apple trees in this district.

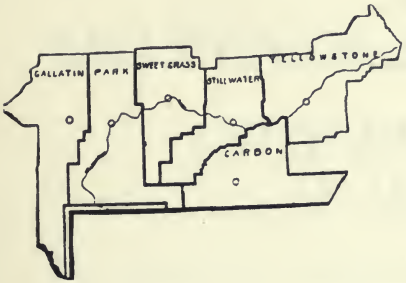
Livestock production in this district has the following percentages of the state total: Horses, 5; Dairy Cows, 4; Beef Cows, 11; All Cattle, 10; Sheep, 12; Swine, 5; and Poultry, 18 per cent.

VALUATION STATISTICS FOR DISTRICT SEVEN

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$5,679,100	$2,978,000
1926	4,746,400	2,565,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

CROP DISTRICT EIGHT—SOUTH CENTRAL MONTANA



Lying in south central Montana, Carbon, Gallatin, Park, Stillwater, Sweet Grass and Yellowstone counties comprise District Eight. In 1924 this section had 11 per cent of the state's total land in farms.

All of the principal crops grown in Montana are found in this district and it is especially noticeable that it is here we find the bulk of the cash crops of the state. In the lead we find Seed Peas, with 68 per cent of the state total; next in order is the Sugar Beet crop with 67 per cent of the total production, then Beans with 62 per cent, followed by Alfalfa Hay with 26 per cent of the total production. The other crops in order of percentage of state total production are as follows: Winter wheat, 24 per cent; Clover Hay, 23 per cent; Mixed Timothy and Clover Hay, 22 per cent; Barley, 20 per cent; Oats, 15 per cent; Potatoes, 12 per cent; Corn, 10 per cent; Spring wheat, 8 per cent; Apples and Grain Hay, each 7 per cent. Here is also 6 per cent of the Alfalfa Seed production of the state. District Eight ranks second to the Fourth District in truck crop production, having 21 per cent of the state total. Rye has 2 per cent; Flax, 1 per cent; and Wild Hay, 3 per cent of the state total production.

In fruit production District Eight is credited with 3 per cent of the commercial apple trees in the state and 7 per cent of the state total apple rees of bearing age.

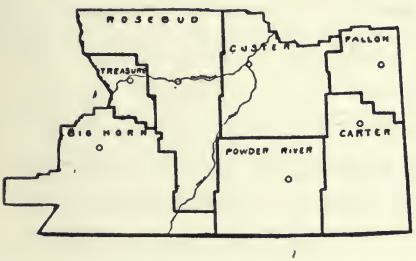
In District Eight we find the following percentages of the state total livestock: Horses, 19; Dairy Cows, 18; Beef Cows, 10; All Cattle, 12; Sheep, 14; Swine, 19; and Poultry, 18 per cent of the total.

VALUATION STATISTICS FOR DISTRICT EIGHT

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$20,010,925	$10,498,000
1926	20,441,720	11,047,000

DISTRICT CROP AND LIVESTOCK STATISTICS IN BRIEF

DISTRICT NINE—SOUTHEASTERN MONTANA



Seven counties make up District Nine: Big Horn, Carter, Custer, Fallon, Powder River, Rosebud and Treasure, which in 1924 had 17 per cent of the state's total land in farms.

All of the principal field crops grown in Montana are found in this district, and as was the case in District Eight we find here that the principal crop is one of the important cash crops of the state. District Nine is credited with the bulk of the state's Alfalfa Seed production at 61 per cent. The other crops in order are Corn, 20 per cent; Edible Beans, 16 per cent; Alfalfa Hay, 15 per cent; Flax, 13 per cent; Rye, 13 per cent; Wild Hay, 12 per cent; Barley, 11 per cent; Winter wheat, 11 per cent; Oats, 10 per cent; Grain Hay, 10 per cent; All Tame Hay, 10 per cent; Sugar Beets, 8 per cent; Potatoes, 6 per cent; Spring wheat, 5 per cent; Clover Hay, 5 per cent. Here also we find 10 per cent of the state's total truck crop production.

Very little fruit is grown in District Nine—some wild berries and plums are found along the streams but cultivated fruits, apples, etc., are not raised to any extent.

In livestock production this district has the following percentages of the state total: Horses, 14; All Cattle, 16; Dairy Cows, 15; Beef Cows, 17; Sheep, 14; Swine, 14; and Poultry, 12 per cent.

VALUATION STATISTICS FOR DISTRICT NINE

	VALUE OF CROPS PRODUCED	VALUE OF CROPS SOLD
1925	$10,208,325	$ 5,355,000
1926	8,512,360	4,600,000

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MONTANA STATE FAIR

SEPTEMBER 5, 6, 7, 8 AND 9

The Twenty-fifth Annual Montana State Fair will open on Monday, September 5, and continue for five days, closing on September 9, 1927.

This year's fair will be under the management of the Montana Department of Agriculture, Labor and Industry.

The first state fair financed by the commonwealth was held in 1902. Since then the institution has grown to be one of the largest in the northwest. A fair has been held continuously since the first exposition.

The grounds are located about one mile northwest of the city of Helena and were originally contributed to the state by an enterprising group of capital city citizens. Since the acquisition of the original grounds, the state has purchased approximately 160 acres. Buildings and improvements are now valued at approximately a quarter of a million dollars. The buildings include a spacious grandstand, agricultural, horticultural, livestock and exhibition buildings and a manufacturers and automobile hall.

The premium lists for the 1927 fair are in the course of preparation as this publication goes to press and copies may be secured by writing to the Montana State Fair, Helena.